Baskar / 09/987190

FILE 'HCAPLUS' ENTERED AT 10:59:31 ON 10 APR 2003
L1 17 S (FUNG##(W)ANTIGEN)(L)((CANDID?`OR C)(W)ALBICANS) -key terms.

L1 ANSWER 1 OF 17 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:959907 HCAPLUS
DOCUMENT NUMBER: 138:88476
TITLE: The Role of Apoptosis in the Antigen-Specific T Cell Hyporesponsiveness of Paracoccidioidomycosis Patients
AUTHOR(S): Cacere, Camila R.; Romano, Carla C.; Mendes Giannini, Maria J. S.; Duarte, Alberto J. S.; Benard, Gil
CORPORATE SOURCE: Laboratorio de Alergia e Imunologia Clinica e Experimental, Universidade de Sao Paulo, Sao Paulo, 01246-903, Brazil
SOURCE: Clinical Immunology (San Diego, CA, United States) (2002), 105(2), 215-222
CODEN: CLIIFY; ISSN: 1521-6616
PUBLISHER: Elsevier Science
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Paracoccidioidomycosis is a deep endemic mycosis assocd. with an antigen-specific immunodeficiency. To examine the role of apoptosis in this immunodeficiency, peripheral blood mononuclear cells (PBMC) of patients with paracoccidioidomycosis and controls were stimulated with the main antigen of Paracoccidioides brasiliensis (gp43) and an unrelated **fungal antigen** (from **Candida albicans**, CMA) and analyzed for annexin V and propidium iodide staining by flow cytometry. Control PBMC proliferated well with both antigens. Patients' PBMC proliferated only with CMA, but presented higher levels of apoptosis with gp43 and CMA than in their own unstimulated cultures. Moreover, gp43-triggered apoptosis in control PBMC was lower than in those of the patients. Thus, patient but not control gp43-stimulated T cells apparently remained anergized and subsequently underwent apoptosis. While CMA-induced apoptosis is likely triggered by activation-induced cell death, this is apparently not the case in gp43-induced apoptosis because of the lack of cell cycling and IL-2 in the gp43-stimulated cultures. However, higher IL-10 levels were found in gp43-stimulated patient PBMC cultures. Addn. of a neutralizing anti-IL-10 antibody to the cultures resulted in increased apoptosis levels only in gp43-stimulated patient PBMC cultures. Our results suggest that apoptosis plays a role in the patients' antigen-specific hyporesponsiveness and that IL-10 may have an antiapoptotic role.
REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 2 OF 17 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:633091 HCAPLUS
DOCUMENT NUMBER: 137:152028
TITLE: Method of estimation of immunogenicity of microorganism antigens
INVENTOR(S): Laskavyi, V. N.; Agol'tsov, V. A.; Parfenov, A. A.; Polnikov, I. A.; Fedotova, E. V.
PATENT ASSIGNEE(S): Saratovskaya Nauchno-Issledovatel'skaya Veterinarnaya Stantsiya, Russia
SOURCE: Russ., No pp. given

CODEN: RUXXE7
DOCUMENT TYPE: Patent
LANGUAGE: Russian
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
RU 2176392	C2	20011127	RU 1999-123796	19991110

PRIORITY APPLN. INFO.: RU 1999-123796 19991110

AB The invention involves mixing the fungal antigens with guinea pig complement, addn. of rabbit stabilized blood, mixt. incubation, smears prepn., selection of fixed leukocytes to be analyzed, and detn. of agglutinated (agglomerated) leukocytes among them. Results are evaluated by the agglomeration index value as a ratio of agglutinated leukocytes to the total analyzed leukocytes. Cytoplasmic fractions of fungi of genus Candida, Aspergillus, and Mucor are used as antigens of microorganisms. After incubation of mixt. the smears are fixed with Me alc. and the analyzed amt. of leukocytes is selected to be 100. Antigens of the cytoplasmic fraction of fungi of the genus Candida are considered to be immunogenic at the agglomeration index value of 6-10%. Antigens of the cytoplasmic fraction of fungi of genus Mucor are considered to be immunogenic at the agglomeration index value of 6-16%. Antigens of the cytoplasmic fraction of fungi of genus Aspergillus are considered to be immunogenic at the agglomeration index value of 6-15%.

L1 ANSWER 3 OF 17 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:317859 HCAPLUS
DOCUMENT NUMBER: 136:400180
TITLE: Intravaginal and intranasal immunizations are equally effective in inducing vaginal antibodies and conferring protection against vaginal candidiasis
AUTHOR(S): De Bernardis, Flavia; Boccanera, Maria; Adriani, Daniela; Girolamo, Antonietta; Cassone, Antonio
CORPORATE SOURCE: Department Bacteriology and Medical Mycology, Istituto Superiore de Sanita, Rome, 00161, Italy
SOURCE: Infection and Immunity (2002), 70(5), 2725-2729
CODEN: INFIBR; ISSN: 0019-9567
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Oophorectomized, estrogen-treated rats were immunized by the intravaginal or intranasal route with a mannoprotein ext. (MP) or secreted aspartyl proteinases (Sap) of **Candida albicans**, with or without cholera toxin as a mucosal adjuvant. Both routes of immunization were equally effective in (i) inducing anti-MP and anti-Sap vaginal antibodies and (ii) conferring a high degree of protection against the vaginal infection by the fungus. These data suggest that appropriate **fungal antigens** and adjuvant can be used to protect against candidal vaginitis, by either route.

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 4 OF 17 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:53542 HCAPLUS
DOCUMENT NUMBER: 137:77334
TITLE: Immunoreactivity of the fungal cell wall
AUTHOR(S): Ponton, J.; Omaetxebarria, M. J.; Elguezabal, N.; Alvarez, M.; Moragues, M. D.
CORPORATE SOURCE: Departamento de Immunologia, Microbiologia y Parasitologia, Facultad de Medicina y Odontologia, Universidad del Pais Vasco, Vizcaya, E-48080, Spain
SOURCE: Medical Mycology (2001), 39(Suppl. 1), 101-110
CODEN: MEMYFR; ISSN: 1369-3786
PUBLISHER: BIOS Scientific Publishers Ltd.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review. The cell wall is the major fungal structure involved in the interaction with the host and most of the immunol. effects obsd. with intact fungal cells have been reproduced with cell-wall components. As a result of the exposure to **fungal antigens**, most individuals develop both cellular and antibody responses intended to limit the invasiveness or to eradicate the fungus from the infected tissues. However, a no. of fungi including **Candida albicans**, Cryptococcus neoformans, Blastomyces dermatitidis, Coccidioides immitis, Trichophyton spp. and Histoplasma capsulatum can also induce T- and B-suppressive activities. A wide diversity of immunodominant cell-wall antigens for both cell-mediated and humoral responses have been identified in the most important fungal pathogens, although considerable differences exist in the information available at the mol. level among the different mycoses. Cellular responses require macrophage and Th1 activation, whereas humoral responses comprise the activation of the complement system and the induction of antibodies. The ability of fungal cell-wall components to elicit cellular or humoral immune responses has been traditionally used in the serodiagnosis of mycoses, the identification of fungal organisms and the development of vaccines for the prevention of mycoses. In the future, the anal. of such mols. will provide crit. information in understanding the nature of host-fungus interactions.
REFERENCE COUNT: 141 THERE ARE 141 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 5 OF 17 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:309887 HCAPLUS
DOCUMENT NUMBER: 135:91199
TITLE: Identification of continuous B-cell epitopes on the protein moiety of the 58-kiloDalton cell wall mannoprotein of **Candida albicans** belonging to a family of immunodominant **fungal antigens**
AUTHOR(S): Viudes, Angel; Perea, Sofia; Lopez-Ribot, Jose L.
CORPORATE SOURCE: Department of Medicine, Division of Infectious Diseases, The University of Texas Health Science Center at San Antonio, San Antonio, TX, 78284-7881, USA
SOURCE: Infection and Immunity (2001), 69(5), 2909-2919
CODEN: INFIBR; ISSN: 0019-9567

PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The 58-kiloDalton mannoprotein (mp58) on the surface of **Candida albicans** is highly immunogenic, is expressed by all **C. albicans** isolates tested, and elicits strong antibody responses during candidiasis. It belongs to a family of immunodominant **fungal antigens** with representatives also in different species of Aspergillus. The amino acid sequence of the protein portion of mp58 as deduced from the DNA sequence of its encoding gene (FBP1/PRA1) was used to synthesize a complete set of overlapping dodecapeptides (overlap, 7; offset, 5) covalently attached to the surface of derivatized polyethylene pins. The pin-coupled peptides were used in a modified ELISA to identify continuous epitopes recognized by a no. of antiserum prepns. contg. anti-mp58 antibodies. This comprehensive epitope-scanning study revealed the presence of multiple immunoreactive continuous B-cell epitopes within the protein sequence. Regions of increased reactivity included both the amino and carboxy termini of the mature protein (encompassing amino acid residues 16 to 50 and 286 to 299, resp.) and four internal regions spanning amino acids at positions 66 to 92, 121 to 142, 148 to 192, and 211 to 232. Further delineation of epitopic regions and identification of the boundaries of the antigenic sites was performed upon ELISA testing with a second Pepset consisting of completely overlapping 8-mer peptides spanning these reactive regions in the protein moiety of mp58. The highly reactive epitopic region at the C terminus of the protein was further evaluated using both window net and replacement net analyses. A synthetic peptide corresponding to the last 10 amino acid residues at the C terminus of the protein was immunogenic when injected into mice after being coupled to a carrier protein. Moreover, antibodies in the resulting sera specifically recognized the homologous mp58 in ELISAs and immunoblot assays. Delineation of the antibody responses to mp58 could provide the basis for the development of novel immunity-based prophylactic, therapeutic, and diagnostic techniques for the management of candidiasis.
REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 6 OF 17 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:716293 HCAPLUS
DOCUMENT NUMBER: 134:309296
TITLE: The role of fungal allergy in bronchial asthma
AUTHOR(S): Akiyama, Kazuo
CORPORATE SOURCE: Clinical Research Center for Allergy and Rheumatology, National Sagamihara Hospital, Sagamihara, 228-8522, Japan
SOURCE: Nippon Ishinkin Gakkai Zasshi (2000), 41(3), 149-155
CODEN: NIGZE4; ISSN: 0916-4804
PUBLISHER: Nippon Ishinkin Gakkai
DOCUMENT TYPE: Journal; General Review
LANGUAGE: Japanese
AB A review with 12 refs. Fungus is known to be one of the causative allergens inducing bronchial asthma as are house dust mites, pollen and pet dander. Outdoor airborne fungi such as Cladosporium,

Alternaria, Penicillium and Aspergillus are important inducing IgE antibody formation. In addn. to these common fungi, the indoor fungi Aspergillus restrictus, Neurospora and Eurotium are important allergenic fungi which have recently been identified. The yeast **Candida albicans**, is a common commensal of the human oral and vaginal mucosae and gastrointestinal tract and part of the normal flora, is known as one of the main allergens causing bronchial asthma. The authors examd. the allergenicity of mannan (Mn) as a cell-wall constituent and acid protease (CAAP) as a secreted enzyme of **C. albicans**. The authors previously reported cases of atopic asthma caused by CAAP and stressed the role of CAAP as an important allergen in mucosal allergy to **C. albicans**. The levels of the antibodies to these antigens in the sera of asthmatic patients who showed pos. immediate intradermal response to crude **C. albicans** (n=86) were measured. Anti-Mn IgE and IgG antibody levels were measured by liq.-phase assay (AlaSTAT). Anti-CAAP and anti-crude **C. albicans** IgE and IgG antibody levels were measured by RAST and AlaSTAT. Anti-Mn A and anti-Mn B IgE antibody titers were strongly correlated (r=0.87), while anti-Mn A and anti-CAAP IgE titers were not correlated. However, all of the anti-Mn A IgE pos. sera and all of the anti-CAAP IgE pos. sera were pos. for IgE to crude-**C. albicans**. This indicates that both Mn and CAAP are **C. albicans** -related allergens. Titers of IgG antibodies to Mn A and crude **C. albicans** were highly correlated (r=0.90). Results of inhibition assays performed using other **fungal antigens** as inhibitors showed that Mn is a cross reactive allergen among different fungi and that CAAP is a **C. albicans** specific allergen causing human mucosal allergic reaction.

L1 ANSWER 7 OF 17 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:439923 HCAPLUS
DOCUMENT NUMBER: 133:55182
TITLE: Purification of native enolase from medically important Candida species
AUTHOR(S): Ballantyne, Denis S.; Warmington, John R.
CORPORATE SOURCE: School of Biomedical Sciences, Curtin University of Technology, Perth, 6845, Australia
SOURCE: Biotechnology and Applied Biochemistry (2000), 31(3), 213-218
CODEN: BABIEC; ISSN: 0885-4513
PUBLISHER: Portland Press Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The 48-kDa glycolytic enzyme, enolase, has been identified as an immunodominant antigen in **Candida albicans** infections. It has also been identified as an important fungal allergen. Here, enolase from a no. of medically important Candida species was purified using a 2-step anion- and cation-exchange chromatog. method that was preceded by an org. extn. The enolases purified by this method had a high specific activity and the procedure was 40% efficient, with an av. of 5 mg enolase/g Candida cells. The purifn. of native enolase from medically important Candida species will enable the immunol. significance and interspecies relations of this major **fungal antigen** to be investigated.

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 8 OF 17 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:147 HCAPLUS
DOCUMENT NUMBER: 132:235813
TITLE: Fungal infection and allergy in airway: allergenicity of Candida albicans
AUTHOR(S): Akiyama, Kazuo; Shida, Takao; Yasueda, Hiroshi; Saito, Akemi; Hasegawa, Maki; Maeda, Yuji; Mita, Haruhisa; Yanagihara, Yukiyoshi; Yamaguchi, Hideyo
CORPORATE SOURCE: Clinical Research Center for Allergy and Rheumatology, National Sagamihara Hospital, Kanagawa, 228-8522, Japan
SOURCE: Kokyu (1999), 18(10), 1116-1125
CODEN: KOKUDH; ISSN: 0286-9314
PUBLISHER: Respiration Research Foundation
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
AB The yeast **Candida albicans** (C. alb), which is a common commensal of the human oral and vaginal mucosa and gastrointestinal tract as part of the normal flora, is known as one of the important allergens to cause bronchial asthma. Since the allergenic component of C. alb, has not been clearly identified, we examd. the allergenicity of mannan (Mn) as a cell-wall constituent and acid protease (CAAP) as a secreted enzyme of C. alb. We previously reported cases of atopic asthma caused by CAAP and stressed the role of CAAP as an important allergen in mucosal allergy to C. alb. The levels of the antibodies to these antigens in the sera of asthmatic patients who showed pos. immediate intradermal response to crude C. alb were measured. Anti-Mn IgE and IgG antibody levels were measured by liq.-phase assay (AlaSTAT). Anti-CAAP and anti-crude C. alb IgE and IgG antibody levels were measured by RAST and AlaSTAT. Anti-Mn A and anti-Mn B IgE antibody titers were strongly correlated. Anti-Mn A and anti-CAAP IgE titers were not correlated. However, all of the anti-Mn A IgE and anti-CAAP IgE pos. sera were pos. for IgE to crude-C. alb. This indicates that both Mn and CAAP are C. alb-related allergens. Titers of IgG antibodies to Mn A and crude C. alb were highly correlated (r=0.90). Results of inhibition assays performed using other **fungal antigens** as inhibitors showed that Mn is a cross reactive allergen among different fungi and that CAAP is a C. alb specific allergen causing human mucosal allergic reaction.

L1 ANSWER 9 OF 17 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:372070 HCAPLUS
DOCUMENT NUMBER: 131:43525
TITLE: Degranulation of eosinophils by IgG antibody to Candida antigen
AUTHOR(S): Ikeda, Yasuko; Mita, Haruhisa; Kudo, Makoto; Hasegawa, Maki; Akiyama, Kazuo
CORPORATE SOURCE: Dep. Clin. Res., Natl. Sagamihara Hosp., Japan
SOURCE: Arerugi (1999), 48(5), 546-553
CODEN: ARERAM; ISSN: 0021-4884
PUBLISHER: Nippon Arerugi Gakkai

DOCUMENT TYPE: Journal
LANGUAGE: Japanese
AB The pathophysiol. role of IgG antibody to **fungi antigen** widely distributed in environment such as **Candida albicans** in bronchial asthma has not been clarified. Wells of microtiter plate were coated with the ext. of **Candida albicans** and then IgG antibody was immobilized on the wells by incubation with patient's serum. After cultivation of eosinophils on the well, degranulation of eosinophils, as assessed by quantitation of EPX in the supernatant, has been obsd. Degranulation was completely abrogated after depletion of IgG in the serum and also decreased by incubation of the cells with anti-CD32 antibody, or anti-CD18 antibody, but not anti-CD23 antibody. Immune complex, which had been prepd. by incubation of the ext. of **Candida albicans** with patient's serum, also evoked degranulation of eosinophils. We have examd. whether degranulation can be induced by two purified antigens of **Candida albicans**, i.e., mannan A and acid protease. IgG antibody to acid protease was detected at no or minimal levels in most sera and the antigen did not induce degranulation. On the other hand, mannan A induced degranulation. This observation may be due to response for the presence of IgG antibody to mannan A in the sera. These results suggest that immobilized IgG induced degranulation of eosinophils through FC.gamma.RII (CD 32) on eosinophils and mannan A is a major allergen assocd. with IgG-induced eosinophil degranulation.

L1 ANSWER 10 OF 17 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:585454 HCAPLUS
DOCUMENT NUMBER: 129:259317
TITLE: Cloning of cDNA for fungal antigen and clinical use of the antigen
INVENTOR(S): Takesako, Kazutada; Mizutani, Shigetoshi; Endo, Masahiro; Kato, Ikunoshin
PATENT ASSIGNEE(S): Takara Shuzo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10234379	A2	19980908	JP 1997-61807	19970227

PRIORITY APPLN. INFO.: JP 1997-61807 19970227
AB An antigen of fungi is prepd. from the water-sol. portion of fungal protoplasts or spheroplasts. The antigen can be used as a diagnostic, prophylactic, and therapeutic agent for fungal disease such as allergy. A 28,000-Dalton antigen (Ca-HSS) was isolated from the water-sol. portion of the protoplasts past prepd. from Candida albicans strain TIMM 1768. A cDNA library of C. albicans strain TIMM 1768 was screened with an antibody to Ca-HSS to obtain clone p7B that encodes the N-terminal fragment of the Ca-HSS antigen. Use of the Ca-HSS antigen for desensitization of fungi-assocd. allergy was also described. A 27,000-Dalton antigen from C. albicans strain TIMM and its partial amino acid sequence were also shown.

L1 ANSWER 11 OF 17 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:175948 HCAPLUS
DOCUMENT NUMBER: 128:242885
TITLE: Fungal antigens and process for producing the same
INVENTOR(S): Takesako, Kazutoh; Mizutani, Shigetoshi; Endo, Masahiro; Kato, Ikunoshin
PATENT ASSIGNEE(S): Takara Shuzo Co., Ltd., Japan; Takesako, Kazutoh; Mizutani, Shigetoshi; Endo, Masahiro; Kato, Ikunoshin
SOURCE: PCT Int. Appl., 108 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9809990	A1	19980312	WO 1997-JP3041	19970829
W: AU, BG, BR, CA, CN, CZ, HU, JP, KR, MX, NO, NZ, PL, RO, SG, SK, US, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9740327	A1	19980326	AU 1997-40327	19970829
AU 725733	B2	20001019		
EP 970966	A1	20000112	EP 1997-937856	19970829
R: DE, FR, GB, IT, NL				
US 6333164	B1	20011225	US 1999-262856	19990304
US 2002058298	A1	20020516	US 2001-987190	20011113

PRIORITY APPLN. INFO.:
JP 1996-255400 A 19960904
JP 1997-99775 A 19970331
WO 1997-JP3041 W 19970829
US 1999-262856 A3 19990304

AB Disclosed are **fungal antigens** which are insol. fractions obtained from fungal cells from which the cell membrane has been substantially or at least partly eliminated; a process for producing the same; nucleic acids encoding these **fungal antigens**; biol. prepns. contg. the above **fungal antigens**; a method for stimulating immune responses with the use of the above biol. prepns.; a method for regulating allergic reactions of vertebrates against fungi; and a method for diagnosing diseases of vertebrates caused by fungi, etc. These antigens are derived from organelle, e.g. mitochondria, nucleus, lysosome of fungus, such as Candida, Aspergillus, Cryptococcus, Mucor, Rhizopus, Absidia, Nocardia, Histoplasma, Blastomyces, Coccidioides, Trichophyton, Microsporum, Epidermophyton, Sporothrix, Dematiaceous fungi, Malassezia, Pneumocystis, Penicillium, Alternaria, Cladosporium, Botrytis, Aureobasidium, Fusarium, Trichoderma, Helminthosporium, Neurospora, Wallemia, and Rhodotorula. Thus, **Candida albicans** antigen and cDNA were prepd.
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 12 OF 17 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:438123 HCAPLUS

DOCUMENT NUMBER: 127:144776
TITLE: Induction of protective Th1 responses to Candida albicans by antifungal therapy alone or in combination with an interleukin-4 antagonist
AUTHOR(S): Cenci, Elio; Mencacci, Antonella; Del Sero, Giuseppe; Bistoni, Francesco; Romani, Luigina
CORPORATE SOURCE: Microbiology Section, Department of Experimental Medicine and Biochemical Sciences, University of Perugia, Perugia, 06122, Italy
SOURCE: Journal of Infectious Diseases (1997), 176(1), 217-226
CODEN: JIDIAQ; ISSN: 0022-1899
PUBLISHER: University of Chicago Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Resistance or susceptibility to disseminated and mucosal **Candida albicans** infections in mice correlates with the development of protective or nonprotective T helper (Th) cell responses. To det. whether immunomodulatory activity on Th cell functions is an effect beyond that provided by antifungal therapy, mice with disseminated or gastrointestinal infection were treated with amphotericin B or fluconazole and assessed for mortality, fungus burden in the organs, and parameters of Th cell-dependent immunity. Both antimycotics produced protective CD4+ Th1 cell responses, as revealed by increased prodn. of interleukin (IL)-12 and interferon-.gamma., decreased prodn. of IL-4, delayed-type hypersensitivity to **fungal antigen**, and the disappearance of antigen-specific IgE. Concomitant neutralization of endogenous IL-4 greatly increased the antifungal efficacy and the Th1-promoting activity of both agents. These results indicate that successful antifungal therapy alone or in combination with cytokine antagonists may rely on the induction of an appropriate Th antifungal cell response.

L1 ANSWER 13 OF 17 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1993:515070 HCAPLUS
DOCUMENT NUMBER: 119:115070
TITLE: Murine monoclonal antibodies to glycoprotein antigens of aspergillus fumigatus show cross-reactivity with other fungi
AUTHOR(S): Kumar, Anoopa; Kurup, Viswanath P.
CORPORATE SOURCE: Res. Serv., Med. Cent., Milwaukee, WI, USA
SOURCE: Allergy Proceedings (1993), 14(3), 189-93
CODEN: ALPRE5; ISSN: 1046-9354
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Six monoclonal antibodies produced against Aspergillus fumigatus were studied for their cross-reactivity against other **fungal antigens** from related and unrelated organisms. Five of the monoclonal antibodies reacted with glycoprotein antigens as evidenced by their binding to Con A, although one did not react with Con A. The reactivities of the monoclonal antibodies with various antigens were studied by biotin-avidin linked immunosorbent assay and Western blots. The results indicate that two monoclonal antibodies (Asp D1 and Asp C9) react with antigens from aspergilli as well as other fungi including Penicillium notatum and **Candida albicans**, whereas three of six antibodies (Asp H10, Asp ILB8, and Asp C2B1) react with A. fumigatus antigen

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only. Hence, these monoclonal antibodies can be used to obtain group specific and species specific antigens for various immunodiagnostic assays.

L1 ANSWER 14 OF 17 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1986:588930 HCAPLUS
DOCUMENT NUMBER: 105:188930
TITLE: Heterogenous enzyme immunoassay: detection of anti-Candida albicans specific Ig-isotypes and mannan antigen
AUTHOR(S): Paulovicova, Ema; Sandula, Josef
CORPORATE SOURCE: Inst. Pneumophthisiol. Gerontol., Bratislava, 825 56, Czech.
SOURCE: Mykosen (1986), 29(9), 393-8
CODEN: MYKSAW; ISSN: 0027-5557
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The serum levels in patients of anti-**C. albicans** IgA, IgG and IgM class antibodies were quantified by heterogenous sandwich enzyme-immunoassay. The presence of polysaccharide (mannan) antigen reactive with rabbit antiserum to **C. albicans** was also demonstrated by this assay. The thermal dissocn. of antigen-antibody complex was efficient in quant. detn. of **fungal antigens**. Using the methods of correlation anal., the close relationship between Ig-isotypes was studied. There was a correlation between IgG and IgA class and between IgA and IgM class. The correlation between IgG and IgM class for .alpha.=0.01 was decreased significantly.

L1 ANSWER 15 OF 17 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1985:452443 HCAPLUS
DOCUMENT NUMBER: 103:52443
TITLE: Cross-reacting human and rabbit antibodies to antigens of Histoplasma capsulatum, Candida albicans, and Saccharomyces cerevisiae
AUTHOR(S): Kumar, B. Vijaya; Medoff, Gerald; Kobayashi, G. S.; Sireling, W. Leo
CORPORATE SOURCE: Sch. Med., Washington Univ., St. Louis, MO, 63110, USA
SOURCE: Infection and Immunity (1985), 48(3), 806-12
CODEN: INFIBR; ISSN: 0019-9567
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Using Western blots of electrophoretically sepd. antigens, it is shown that human antibodies react most frequently to antigens shared by 3 fungi (H. capsulatum, **C. albicans**, and S. cerevisiae). Reactivity to antigens specific for individual fungi was relatively uncommon. The pattern of reactivity could not distinguish infected patients from uninfected controls. Rabbits immunized with exts. of each fungus also produced antibodies to cross-reactive or shared antigens of the other 2 fungi. Furthermore, preimmune sera showed similar but lower reactivity with the same **fungal antigens**. Apparently, preimmunization antibodies, which probably resulted from earlier fungal colonization or inapparent infections, predisposed the immune responses elicited by the vaccinations. A similar mechanism likely explains the results with human sera.

L1 ANSWER 16 OF 17 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1982:120550 HCAPLUS
DOCUMENT NUMBER: 96:120550
TITLE: The effect of delayed addition of antigen and 'E' rosetting on the proliferative response to mycobacterial antigens of peripheral blood lymphocytes from normal individuals or from patients with tuberculosis or leprosy
AUTHOR(S): Bahr, G. M.; Rook, G. A. W.; Stanford, J. L.; Lydyard, P. M.; Bryceson, A. D. M.
CORPORATE SOURCE: Dep. Microbiol., Middlesex Hosp. Med. Sch., London, UK
SOURCE: Immunology (1981), 44(3), 585-91
CODEN: IMMUAM; ISSN: 0019-2805
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Delayed addn. of mycobacterial antigens (M. leprae, M. vaccae, and M. tuberculosis), but not of a **fungal antigen** (**Candida albicans**) caused enhanced responses using peripheral blood mononuclear cells (PBMNC) from most normal donors or tuberculoid leprosy (TT/BT) patients. The effect was less common using PBMNC from the lepromatous leprosy (BL/LL) group, suggesting that this type of suppression reflects a normal mechanism, which is diminished rather than increased in anergic patients. Delayed addn. of antigens to erythrocyte-rosetting cells did not enhance responses. However, the different effects of erythrocyte-rosetting on the responses to the mycobacterial antigens from normal, TT/BT, and BL/LL patients suggested that there may be 2 types of proliferative response to these antigens.

L1 ANSWER 17 OF 17 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1973:476870 HCAPLUS
DOCUMENT NUMBER: 79:76870
TITLE: Antigen stimulation of tritium-labeled thymidine incorporation by subpopulations of human peripheral blood cells
AUTHOR(S): Eisen, Seth A.; Lyle, Leon R.; Parker, Charles W.
CORPORATE SOURCE: Sch. Med., Washington Univ., St. Louis, MO, USA
SOURCE: Journal of Immunology (1973), 111(3), 962-72
CODEN: JOIMA3; ISSN: 0022-1767
DOCUMENT TYPE: Journal
LANGUAGE: English
AB By using human peripheral blood lymphocytes at various stages of purification the question of whether foreign proteins and hapten-protein conjugates to which the cell donor has no known previous immunization can stimulate in vitro thymidine-3H incorporation was obsd. Responses were examd. in dextran-sedimented mixed leukocytes, purified lymphocytes isolated by isopycnic centrifugation in a Ficoll-Hypaque gradient (FH cells), and FH cells that had been further purified by passage through a short nylon wool column (nylon-purified cells). The dextran-sedimented, FH, and nylon-purified cells were cultured in autologous serum with various antigens for 5 days, and the increase in thymidine-3H incorporation was measured. In mixed leukocytes and FH cells, all of the antigens examd. (bovine serum albumin, bovine .gamma.-globulin, **Candida albicans**, histoplasmin, trinitrophenyl-bovine serum albumin, dinitrophenyl-bovine serum

albumin, and fluorescein-bovine .gamma.-globulin) produced a significant increase in thymidine-3H uptake. Appropriate controls indicated that the response could not be ascribed to endotoxin. Serum protein and **fungal antigens** stimulated nylon purified cells as well or better than the leukocyte or FH populations. Contrariwise, the 3 hapten-protein conjugates inhibited thymidine incorporation by nylon-purified cells. The in vitro response to serum protein and **fungal antigens** may represent a secondary immune phenomenon in which few if any monocytes are required, whereas stimulation by hapten-protein conjugates may involve a primary immune (monocyte dependent) response. However, the possibility that the hapten-protein stimulation is a secondary response involving cells sensitized to cross-reacting antigens is by no means excluded. The inhibition of nylon-purified cells by hapten-protein conjugates may conceivably represent an in vitro correlate of tolerance.

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO' ENTERED AT 11:00:36 ON 10 APR 2003)
L2 91 S L1
L3 42 DUP REM L2 (49 DUPLICATES REMOVED)

L3 ANSWER 1 OF 42 MEDLINE DUPLICATE 1
ACCESSION NUMBER: 2002217084 MEDLINE
DOCUMENT NUMBER: 21950600 PubMed ID: 11953420
TITLE: Intravaginal and intranasal immunizations are equally effective in inducing vaginal antibodies and conferring protection against vaginal candidiasis.
AUTHOR: De Bernardis Flavia; Boccanera Maria; Adriani Daniela; Girolamo Antonietta; Cassone Antonio
CORPORATE SOURCE: Department of Bacteriology and Medical Mycology, Istituto Superiore di Sanita, 00161 Rome, Italy.
SOURCE: INFECTION AND IMMUNITY, (2002 May) 70 (5) 2725-9. Journal code: 0246127. ISSN: 0019-9567.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200205
ENTRY DATE: Entered STN: 20020416
Last Updated on STN: 20020509
Entered Medline: 20020508
AB Oophorectomized, estrogen-treated rats were immunized by the intravaginal or intranasal route with a mannoprotein extract (MP) or secreted aspartyl proteinases (Sap) of **Candida albicans**, with or without cholera toxin as a mucosal adjuvant. Both routes of immunization were equally effective in (i) inducing anti-MP and anti-Sap vaginal antibodies and (ii) conferring a high degree of protection against the vaginal infection by the fungus. These data suggest that appropriate **fungal antigens** and adjuvant can be used to protect against candidal vaginitis, by either route.

L3 ANSWER 2 OF 42 MEDLINE DUPLICATE 2
ACCESSION NUMBER: 2002720514 MEDLINE
DOCUMENT NUMBER: 22370581 PubMed ID: 12482396
TITLE: The role of apoptosis in the antigen-specific T cell hyporesponsiveness of paracoccidioidomycosis

patients.

AUTHOR: Cacere Camila R; Romano Carla C; Mendes Giannini Maria J S; Duarte Alberto J S; Benard Gil

CORPORATE SOURCE: Laboratorio de Alergia e Imunologia Clinica e Experimental, Hospital das Clinicas, Faculdade de Medicina, Universidade de Sao Paulo, Sao Paulo, Brazil.

SOURCE: CLINICAL IMMUNOLOGY, (2002 Nov) 105 (2) 215-22. Journal code: 100883537. ISSN: 1521-6616.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200301

ENTRY DATE: Entered STN: 20021218
Last Updated on STN: 20030116
Entered Medline: 20030115

AB Paracoccidioidomycosis is a deep endemic mycosis associated with an antigen-specific immunodeficiency. To examine the role of apoptosis in this immunodeficiency, peripheral blood mononuclear cells (PBMC) of patients with paracoccidioidomycosis and controls were stimulated with the main antigen of Paracoccidioides brasiliensis (gp43) and an unrelated **fungal antigen** (from **Candida albicans**, CMA) and analyzed for annexin V and propidium iodide staining by flow cytometry. Control PBMC proliferated well with both antigens. Patients' PBMC proliferated only with CMA, but presented higher levels of apoptosis with gp43 and CMA than in their own unstimulated cultures. Moreover, gp43-triggered apoptosis in control PBMC was lower than in those of the patients. Thus, patient but not control gp43-stimulated T cells apparently remained anergized and subsequently underwent apoptosis. While CMA-induced apoptosis is likely triggered by activation-induced cell death, this is apparently not the case in gp43-induced apoptosis because of the lack of cell cycling and IL-2 in the gp43-stimulated cultures. However, higher IL-10 levels were found in gp43-stimulated patient PBMC cultures. Addition of a neutralizing anti-IL-10 antibody to the cultures resulted in increased apoptosis levels only in gp43-stimulated patient PBMC cultures. Our results suggest that apoptosis plays a role in the patients' antigen-specific hyporesponsiveness and that IL-10 may have an antiapoptotic role.

L3 ANSWER 3 OF 42 MEDLINE DUPLICATE 3

ACCESSION NUMBER: 2001248089 MEDLINE

DOCUMENT NUMBER: 21189202 PubMed ID: 11292706

TITLE: Identification of continuous B-cell epitopes on the protein moiety of the 58-kiloDalton cell wall mannoprotein of **Candida albicans** belonging to a family of immunodominant **fungal antigens**.

AUTHOR: Viudes A; Perea S; Lopez-Ribot J L

CORPORATE SOURCE: Department of Medicine, Division of Infectious Diseases, The University of Texas Health Science Center at San Antonio, San Antonio, Texas.

CONTRACT NUMBER: 1 R29 AI42401 (NIAID)

SOURCE: INFECTION AND IMMUNITY, (2001 May) 69 (5) 2909-19. Journal code: 0246127. ISSN: 0019-9567.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200105
ENTRY DATE: Entered STN: 20010517
Last Updated on STN: 20010517
Entered Medline: 20010510

AB The 58-kiloDalton mannoprotein (mp58) on the surface of **Candida albicans** is highly immunogenic, is expressed by all **C. albicans** isolates tested, and elicits strong antibody responses during candidiasis. It belongs to a family of immunodominant **fungal antigens** with representatives also in different species of Aspergillus. The amino acid sequence of the protein portion of mp58 as deduced from the DNA sequence of its encoding gene (FBP1/PRA1) was used to synthesize a complete set of overlapping dodecapeptides (overlap, 7; offset, 5) covalently attached to the surface of derivatized polyethylene pins. The pin-coupled peptides were used in a modified enzyme-linked immunosorbent assay (ELISA) to identify continuous epitopes recognized by a number of antiserum preparations containing anti-mp58 antibodies. This comprehensive epitope-scanning study revealed the presence of multiple immunoreactive continuous B-cell epitopes within the protein sequence. Regions of increased reactivity included both the amino and carboxy termini of the mature protein (encompassing amino acid residues 16 to 50 and 286 to 299, respectively) and four internal regions spanning amino acids at positions 66 to 92, 121 to 142, 148 to 192, and 211 to 232. Further delineation of epitopic regions and identification of the boundaries of the antigenic sites was performed upon ELISA testing with a second Pepset consisting of completely overlapping 8-mer peptides spanning these reactive regions in the protein moiety of mp58. The highly reactive epitopic region at the C terminus of the protein was further evaluated using both window net and replacement net analyses. A synthetic peptide corresponding to the last 10 amino acid residues at the C terminus of the protein was immunogenic when injected into mice after being coupled to a carrier protein. Moreover, antibodies in the resulting sera specifically recognized the homologous mp58 in ELISAs and immunoblot assays. Delineation of the antibody responses to mp58 could provide the basis for the development of novel immunity-based prophylactic, therapeutic, and diagnostic techniques for the management of candidiasis.

L3 ANSWER 4 OF 42 MEDLINE DUPLICATE 4
ACCESSION NUMBER: 2001493503 MEDLINE
DOCUMENT NUMBER: 21427414 PubMed ID: 11535946
TITLE: Fungal colonization of gastric mucosa and its clinical relevance.
AUTHOR: Zwolinska-Wcislo M; Budak A; Bogdal J; Trojanowska D; Stachura J
CORPORATE SOURCE: Department of Gastroenterology, Collegium Medicum, Jagiellonian University, Cracow, Poland.
SOURCE: MEDICAL SCIENCE MONITOR, (2001 Sep-Oct) 7 (5) 982-8. Journal code: 9609063. ISSN: 1234-1010.
PUB. COUNTRY: Poland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200201
ENTRY DATE: Entered STN: 20010906

Last Updated on STN: 20020125
Entered Medline: 20020117

AB BACKGROUND: The aim of our study was to evaluate the incidence of fungi in the stomach in patients with gastric ulcer and chronic gastritis in comparison to healthy humans, and to identify the fungus species isolated from these patients and their susceptibility to antifungal agents. We also assessed the coincidence of the presence of antifungal antibodies and fungal mannan antigen in serum with the concentration of fungi in the stomach. MATERIAL AND METHODS: We investigated 293 patients, aged 20-80, who visited the Gastroenterology Outpatient Clinic at the Jagellonian University's Collegium Medicum in Cracow, complaining of dyspeptic symptoms or clinical manifestations of ulcer disease. The examinations included endoscopy of the upper part of the alimentary tract with sampling of gastric contents, as well as surface brushing and biopsy from the bottom of the ulceration for mycological analysis. Also, biopsy specimens from the margin of the ulceration or inflammatory mucosa were collected for histological examination and urease testing. RESULTS: Gastric mucosa and stomach contents are often an area of fungal colonization, which was detected in 54.2% of the gastric ulcer cases and 10.3% of the chronic gastritis cases. The most frequently isolated fungus species was **Candida albicans**, although other fungi, previously considered rare or uncommon, were also found. A difference in growth in vitro between the **C. albicans**, C. tropicalis and C. lusitaniae strains was discovered: **C. albicans** and C. tropicalis grew from pH 2.0, while C. lusitaniae grew from pH 3.0. This finding suggests differentiation in the properties of these fungi. CONCLUSIONS: The lack of correlation between the concentration of fungi, the titre of antifungal antibodies and the presence of **fungal antigen** in serum suggests that fungal colonization is secondary in nature.

L3 ANSWER 5 OF 42 MEDLINE DUPLICATE 5
ACCESSION NUMBER: 2002074233 MEDLINE
DOCUMENT NUMBER: 21658497 PubMed ID: 11800264
TITLE: Immunoreactivity of the fungal cell wall.
AUTHOR: Ponton J; Omaetxebarria M J; Elguezabal N; Alvarez M; Moragues M D
CORPORATE SOURCE: Departamento de Inmunologia, Microbiologia y Parasitologia, Facultad de Medicine y Odontologia, Universidad del Pais Vasco, Bilbao, Vizcaya, Spain.. oipposaj@lg.ehu.es
SOURCE: MEDICAL MYCOLOGY, (2001) 39 Suppl 1 101-10. Ref: 141
Journal code: 9815835. ISSN: 1369-3786.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200206
ENTRY DATE: Entered STN: 20020125
Last Updated on STN: 20020619
Entered Medline: 20020618

AB The cell wall is the major fungal structure involved in the interaction with the host and most of the immunological effects observed with intact fungal cells have been reproduced with

cell-wall components. As a result of the exposure to **fungal antigens**, most individuals develop both cellular and antibody responses intended to limit the invasiveness or to eradicate the fungus from the infected tissues. However, a number of fungi including **Candida albicans**, Cryptococcus neoformans, Blastomyces dermatitidis, Coccidioides immitis, Trichophyton spp. and Histoplasma capsulatum can also induce T- and B-suppressive activities. A wide diversity of immunodominant cell-wall antigens for both cell-mediated and humoral responses have been identified in the most important fungal pathogens, although considerable differences exist in the information available at the molecular level among the different mycoses. Cellular responses require macrophage and Th1 activation, whereas humoral responses comprise the activation of the complement system and the induction of antibodies. The ability of fungal cell-wall components to elicit cellular or humoral immune responses has been traditionally used in the serodiagnosis of mycoses, the identification of fungal organisms and the development of vaccines for the prevention of mycoses. In the future, the analysis of such molecules will provide critical information in understanding the nature of host-fungus interactions.

L3 ANSWER 6 OF 42 MEDLINE DUPLICATE 6
ACCESSION NUMBER: 2000275532 MEDLINE
DOCUMENT NUMBER: 20275532 PubMed ID: 10814591
TITLE: Purification of native enolase from medically important Candida species.
AUTHOR: Ballantyne D S; Warmington J R
CORPORATE SOURCE: School of Biomedical Sciences, Curtin University of Technology, GPO Box U1987, Perth WA 6845, Australia.
SOURCE: BIOTECHNOLOGY AND APPLIED BIOCHEMISTRY, (2000 Jun) 31 (Pt 3) 213-8.
Journal code: 8609465. ISSN: 0885-4513.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200007
ENTRY DATE: Entered STN: 20000810
Last Updated on STN: 20000810
Entered Medline: 20000727

AB The 48 kDa glycolytic enzyme, enolase, has been identified as an immunodominant antigen in **Candida albicans** infections. It has also been identified as an important fungal allergen. Enolase from a number of medically important Candida species has been purified using a two-step anion- and cation-exchange chromatography method that was preceded by an organic extraction. The enolases purified by this method have a high specific activity and the procedure is 40% efficient, with an average of 5 mg of enolase/g of Candida cells. The purification of native enolase from medically important Candida species will enable the immunological significance and interspecies relationships of this major **fungal antigen** to be investigated.

L3 ANSWER 7 OF 42 MEDLINE DUPLICATE 7
ACCESSION NUMBER: 2001037333 MEDLINE
DOCUMENT NUMBER: 20398401 PubMed ID: 10938515
TITLE: The role of fungal allergy in bronchial asthma.
AUTHOR: Akiyama K

CORPORATE SOURCE: Clinical Research Center for Allergy and Rheumatology, National Sagamihara Hospital, 18-1 Sakuradai, Sagamihara 228-8522, Japan.
SOURCE: NIPPON ISHINKIN GAKKAI ZASSHI, (2000) 41 (3) 149-55. Ref: 12
Journal code: 9425640. ISSN: 0916-4804.
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW LITERATURE)
LANGUAGE: Japanese
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200011
ENTRY DATE: Entered STN: 20010322
Last Updated on STN: 20010322
Entered Medline: 20001124

AB Fungus is known to be one of the causative allergens inducing bronchial asthma as are housedustmites, pollen and pet dander. Outdoor airborne fungi such as Cladosporium, Alternaria, Penicillium and Aspergillus are important inducing IgE antibody formation. In addition to these common fungi, the indoor fungi Aspergillus restrictus, Neurospora and Eurotium are important allergenic fungi which have recently been identified. The yeast **Candida albicans**, is a common commensal of the human oral and vaginal mucosae and gastrointestinal tract and part of the normal flora, is known as one of the main allergens causing bronchial asthma. We examined the allergenicity of mannan (Mn) as a cell-wall constituent and acid protease (CAAP) as a secreted enzyme of **C. albicans**. We previously reported cases of atopic asthma caused by CAAP and stressed the role of CAAP as an important allergen in mucosal allergy to **C. albicans** 9). The levels of the antibodies to these antigens in the sera of asthmatic patients who showed positive immediate intradermal response to crude **C. albicans** (n=86) were measured. Anti-Mn IgE and IgG antibody levels were measured by liquid-phase assay (AlaSTAT). Anti-CAAP and anti-crude **C. albicans** IgE and IgG antibody levels were measured by RAST and AlaSTAT. Anti-Mn A and anti-Mn B IgE antibody titers were strongly correlated (r=0.87), while anti-Mn A and anti-CAAP IgE titers were not correlated. However, all of the anti-Mn A IgE positive sera and all of the anti-CAAP IgE positive sera were positive for IgE to crude-**C. albicans**. This indicates that both Mn and CAAP are **C. albicans** -related allergens. Titers of IgG antibodies to Mn A and crude **C. albicans** were highly correlated (r=0. 90). Results of inhibition assays performed using other **fungal antigens** as inhibitors showed that Mn is a cross reactive allergen among different fungi and that CAAP is a **C. albicans** specific allergen causing human mucosal allergic reaction.

L3 ANSWER 8 OF 42 MEDLINE DUPLICATE 8
ACCESSION NUMBER: 2001063363 MEDLINE
DOCUMENT NUMBER: 20550106 PubMed ID: 11098624
TITLE: [Asteroid bodies: host-pathogen reactions in mycoses].
Asteroid Bodies: Wirt-Erreger-Reaktionen bei Mykosen.
AUTHOR: Muller J

CORPORATE SOURCE: Sektion Mykologie, Institut fur Medizinische Mikrobiologie, Universitat Freiburg i. Br., Germany.
SOURCE: MYCOSES, (2000) 43 Suppl 1 29-35. Ref: 29
Journal code: 8805008. ISSN: 0933-7407.
PUB. COUNTRY: GERMANY: Germany, Federal Republic of
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: German
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200012
ENTRY DATE: Entered STN: 20010322
Last Updated on STN: 20010322
Entered Medline: 20001222

AB A review of the literature on asteroid bodies (Splendore-Hoeppli phenomenon) as well as an immunoelectronmicroscopic study on asteroid bodies with **Candida albicans** and electronmicroscopic observations on asteroid bodies with Aspergillus are presented. The following definitions are proposed: Asteroid bodies with **Candida albicans**: precipitate consisting of **fungal antigen** and antibodies of host origin in light microscopically visible dimension deposited on the cell wall surface of Candida cells in parasitic condition. Asteroid bodies with Aspergillus: precipitate consisting of **fungal antigen**, antibodies of host origin and necrotic cellular detritus originated from cells of host defense, in light microscopically visible dimension, deposited on the cell wall surface of abortive Aspergillus cells, reduced in longitudinal growth, in parasitic condition.

L3 ANSWER 9 OF 42 WPIDS (C) 2003 THOMSON DERWENT
ACCESSION NUMBER: 1999-601006 [51] WPIDS
DOC. NO. NON-CPI: N1999-443049
DOC. NO. CPI: C1999-174930
TITLE: Assay device which can be inserted into a gastrointestinal tract.
DERWENT CLASS: A96 B04 D16 J04 S03
INVENTOR(S): CHANG, A H; CHANG, A
PATENT ASSIGNEE(S): (HELI-N) HELITECH BIOMEDICAL INC; (CHAN-I) CHANG A H
COUNTRY COUNT: 84
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9944066	A1	19990902	(199951)*	EN	27
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW					
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW					
AU 9932423	A	19990915	(200004)		
CA 2224551	A1	19990825	(200005)	EN	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE

WO 9944066	A1	WO 1999-CA172	19990225
AU 9932423	A	AU 1999-32423	19990225
CA 2224551	A1	CA 1998-2224551	19980225

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9932423	A	Based on	WO 9944066

PRIORITY APPLN. INFO: CA 1998-2224551 19980225
AN 1999-601006 [51] WPIDS
AB WO 9944066 A UPAB: 19991207
NOVELTY - Assay device includes a capsule in which is housed an assay insert made up of a filter unit, a conjugate reagent pad and a reaction membrane. The conjugate reagent pad includes a mobilizable ligand which is capable of binding to the analyte to form a labeled, mobile ligand-analyte complex. The reaction membrane includes an immobilized detection reagent which binds to the complex.

DETAILED DESCRIPTION - An assay device (A) comprises: (a) a capsule having an opening covered by a capsule cap, the capsule cap being dissolvable by an external fluid containing an analyte; (b) a porous filter unit housed in the capsule occluding the opening in the capsule and providing for fluid communication of the analyte in the external fluid into the capsule when the capsule cap dissolves, the porous filter unit being provided with a facilitating reagent that is capable of mixing with the external fluid to provide a reaction condition inside the capsule different from conditions external to the capsule; (c) a conjugate reagent pad housed in the capsule and capable of fluid communication with the filter unit, the conjugate reagent pad including a mobilizable ligand with a label, the mobilizable ligand being capable of binding to the analyte to form a mobile ligand-analyte complex; and (d) a reaction membrane housed in the capsule and capable of fluid communication with the conjugate reagent pad, the reaction membrane including an immobilized detection reagent capable of binding the mobile ligand-analyte complex so that the label is detectable on the reaction membrane.

An INDEPENDENT CLAIM is also included for a method of detecting an analyte in a subject, comprising: (a) providing (A): (b) allowing the subject to swallow the capsule; (c) allowing the capsule to be exposed to the alimentary fluid of the subject for a period of time; and (d) detecting the label on the membrane.

USE - Assay device for in situ immunological assays in the alimentary canal, including the gastrointestinal tract, or for in vitro immunological assays of alimentary or gastrointestinal fluids. The process is used to detectHelicobacter pyloriantigen, whole or disrupted viral particles, cytomegalovirus particles, viral proteins, bacteria, bacterial proteins, fungi, **Candida albicans, fungal antigens,** parasites,Giardia lamblia, Cryptosporidia, parasitic antigens, cancer markers, alpha -feta-protein, and carcino-embrionic-antigen (all claimed).
Dwg.0/3

L3 ANSWER 10 OF 42 JAPIO COPYRIGHT 2003 JPO
ACCESSION NUMBER: 1999-092398 JAPIO

TITLE: COMPOSITION FOR MEDICINE
INVENTOR: TAKESAKO KAZUTADA; ENDO MASAHIRO; MIZUTANI SHIGETOSHI; KATOU IKUNOSHIN
PATENT ASSIGNEE(S): TAKARA SHUZO CO LTD
PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 11092398	A	19990406	Heisei	A61K039-00

APPLICATION INFORMATION
STN FORMAT: JP 1997-258963 19970924
ORIGINAL: JP09258963 Heisei
PRIORITY APPLN. INFO.: JP 1997-258963 19970924
SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1999

AN 1999-092398 JAPIO
AB PROBLEM TO BE SOLVED: To obtain a medicinal composition having low toxicity and side effects, capable of expressing an excellent fungal infection-protecting effect and useful for the prevention or treatment of fungal infection or allergy and the detection of the presence or absence of sensibilization to a fungus by including a **fungal antigen** comprising a fungal fixed cell free from its cell wall.
SOLUTION: This medicinal composition contains as an active ingredient (A) a **fungal antigen** comprising a fixed fungal cell whose cell wall is partially or wholly removed. The composition is obtained e.g. by suspending a fungus such as **Candida albicans** in a proper buffer solution, adding a cell wall-lysing enzyme and, if necessary, further a protease to the suspension, treating for 10 min to several hr to remove a part or all parts of the cell wall, suspending the obtained wall-removed fungus in a 5-8 pH citric acid buffer solution or phosphoric buffer solution containing 0.5-5% of glutaraldehyde or formaldehyde, treating at a temperature of 5-20°C for 1-60 min, centrifuging the treated suspension, sufficiently washing with distilled water, and subsequently using the obtained component A.

L3 ANSWER 11 OF 42 JICST-EPlus COPYRIGHT 2003 JST
ACCESSION NUMBER: 991004082 JICST-EPlus
TITLE: Fungal infection and allergy in airway. Allergenicity of Candida albicans.
AUTHOR: AKIYAMA KAZUO; SHIDA TAKAO; YASUEDA HIROSHI; SAITO AKEMI; HASEGAWA MAKI; MAEDA YUJI; MITA HARUHISA; YANAGIHARA YUKIYOSHI
YAMAGUCHI HIDEYO
CORPORATE SOURCE: Sagamihara National Hospital
Teikyo Univ., Sch. of Med.
SOURCE: Kokyu (Respiration Research), (1999) vol. 18, no. 10, pp. 1116-1125. Journal Code: Y0231A (Fig. 9, Tbl. 4, Ref. 18)
ISSN: 0286-9314
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article
LANGUAGE: Japanese
STATUS: New
AB The yeast **Candida albicans**(C. alb), which is a

common commensal of the human oral and vaginal mucosae and gastrointestinal tract as part of the normal flora, is known as one of the important allergens to cause bronchial asthma. Since the allergenic component of C. alb, has not been clearly identified, we examined the allergenicity of mannan(Mn) as a cell-wall constituent and acid protease(CAAP) as a secreted enzyme of C. alb. We previously reported cases of atopic asthma caused by CAAP and stressed the role of CAAP as an important allergen in mucosal allergy to C. alb. The levels of the antibodies to these antigens in the sera of asthmatic patients who showed positive immediate intradermal response to crude C. alb (n=86) were measured. Anti-Mn IgE and IgG antibody levels were measured by liquid-phase assay (AlaSTAT). Anti-CAAP and anti-crude C. alb IgE and IgG antibody levels were measured by RAST and AlaSTAT. Anti-Mn A and anti-Mn B IgE antibody titers were strongly correlated (r=0.87). Anti-Mn A and anti-CAAP IgE titers were not correlated. However, all of the anti-Mn A IgE and anti-CAAP IgE positive sera were positive for IgE to crude-C. alb. This indicates that both Mn and CAAP are C. alb-related allergens. Titers of IgG antibodies to Mn A and crude C. alb were highly correlated (r=0.90). Results of inhibition assays performed using other **fungal antigens** as inhibitors showed that Mn is a cross reactive allergen among different fungi and that CAAP is a C. alb specific allergen causing human mucosal allergic reaction. (author abst.)

L3 ANSWER 12 OF 42 MEDLINE DUPLICATE 9
ACCESSION NUMBER: 1999319375 MEDLINE
DOCUMENT NUMBER: 99319375 PubMed ID: 10390902
TITLE: Degranulation of eosinophils by IgG antibody to Candida antigen.
AUTHOR: Ikeda Y; Mita H; Kudo M; Hasegawa M; Akiyama K
CORPORATE SOURCE: Department of Clinical Research, National Sagamihara Hospital.
SOURCE: ARERUGI. JAPANESE JOURNAL OF ALLERGOLOGY, (1999 May) 48 (5) 546-53.
Journal code: 0241212. ISSN: 0021-4884.
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Japanese
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199908
ENTRY DATE: Entered STN: 19990910
Last Updated on STN: 19990910
Entered Medline: 19990823

AB The pathophysiological role of IgG antibody to **fungi antigen** widely distributed in environment such as **Candida albicans** in bronchial asthma has not been clarified. Wells of microtiter plate were coated with the extract of **Candida albicans** and then IgG antibody was immobilized on the wells by incubation with patient's serum. After cultivation of eosinophils on the well, degranulation of eosinophils, as assessed by quantitation of EPX in the supernatant, has been observed. Degranulation was completely abrogated after depletion of IgG in the serum and also decreased by incubation of the cells with anti-CD32 antibody, or anti-CD18 antibody, but not anti-CD23 antibody. Immune complex, which had been prepared by incubation of the extract of **Candida albicans** with patient's serum, also evoked degranulation of eosinophils. We

have examined whether degranulation can be induced by two purified antigens of **Candida albicans**, i.e., mannan A and acid protease. IgG antibody to acid protease was detected at no or minimal levels in most sera and the antigen did not induce degranulation. On the other hand, mannan A induced degranulation. This observation may be due to response for the presence of IgG antibody to mannan A in the sera. These results suggest that immobilized IgG induced degranulation of eosinophils through Fc gamma RII (CD 32) on eosinophils and mannan A is a major allergen associated with IgG-induced eosinophil degranulation.

L3 ANSWER 13 OF 42 WPIDS (C) 2003 THOMSON DERWENT
ACCESSION NUMBER: 1998-535033 [46] WPIDS
DOC. NO. NON-CPI: N1998-417434
DOC. NO. CPI: C1998-160581
TITLE: Fungus antigen used in allergenic compositions and vaccines - comprises water-soluble fraction from fungus cell in which cell membrane is substantially or at least partly removed.
DERWENT CLASS: B04 C06 D16 S03
PATENT ASSIGNEE(S): (TAKI) TAKARA SHUZO CO LTD
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 10234379	A	19980908	(199846)*		21

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 10234379	A	JP 1997-61807	19970227

PRIORITY APPLN. INFO: JP 1997-61807 19970227
AN 1998-535033 [46] WPIDS
AB JP 10234379 A UPAB: 19981118
Fungus antigen comprises a water-soluble fraction from a fungus cell in which the cell membrane is substantially or at least partly removed. Also claimed is a polynucleotide encoding a 248 amino acid sequence or its part (given in specification), which is an antigenic protein derived from **Candida albicans**.
ADVANTAGE - The antigen can be used in allergenic compositions for the desensitisation of allergic diseases or a vaccine. It can also be used to diagnose diseases.
Dwg.0/4

L3 ANSWER 14 OF 42 MEDLINE DUPLICATE 10
ACCESSION NUMBER: 97350994 MEDLINE
DOCUMENT NUMBER: 97350994 PubMed ID: 9207370
TITLE: Induction of protective Th1 responses to Candida albicans by antifungal therapy alone or in combination with an interleukin-4 antagonist.
AUTHOR: Cenci E; Mencacci A; Del Sero G; Bistoni F; Romani L
CORPORATE SOURCE: Department of Experimental Medicine and Biochemical Sciences, University of Perugia, Italy.

SOURCE: JOURNAL OF INFECTIOUS DISEASES, (1997 Jul) 176 (1) 217-26.
Journal code: 0413675. ISSN: 0022-1899.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals; AIDS
ENTRY MONTH: 199707
ENTRY DATE: Entered STN: 19970724
Last Updated on STN: 19970724
Entered Medline: 19970717

AB Resistance or susceptibility to disseminated and mucosal **Candida albicans** infections in mice correlates with the development of protective or nonprotective T helper (Th) cell responses. To determine whether immunomodulatory activity on Th cell functions is an effect beyond that provided by antifungal therapy, mice with disseminated or gastrointestinal infection were treated with amphotericin B or fluconazole and assessed for mortality, fungus burden in the organs, and parameters of Th cell-dependent immunity. Both antimycotics produced protective CD4+ Th1 cell responses, as revealed by increased production of interleukin (IL)-12 and interferon-y, decreased production of IL-4, delayed-type hypersensitivity to **fungal antigen**, and the disappearance of antigen-specific IgE. Concomitant neutralization of endogenous IL-4 greatly increased the antifungal efficacy and the Th1-promoting activity of both agents. These results indicate that successful antifungal therapy alone or in combination with cytokine antagonists may rely on the induction of an appropriate Th antifungal cell response.

L3 ANSWER 15 OF 42 MEDLINE DUPLICATE 11
ACCESSION NUMBER: 95395718 MEDLINE
DOCUMENT NUMBER: 95395718 PubMed ID: 7666302
TITLE: Highly sensitive detection of fungal antigens by ultrasound-enhanced latex agglutination.
AUTHOR: Grundy M A; Barnes R A; Coakley W T
CORPORATE SOURCE: School of Pure and Applied Biology, University of Wales College of Cardiff, UK.
SOURCE: JOURNAL OF MEDICAL AND VETERINARY MYCOLOGY, (1995 May-Jun) 33 (3) 201-3.
Journal code: 8605493. ISSN: 0268-1218.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199510
ENTRY DATE: Entered STN: 19951020
Last Updated on STN: 19951020
Entered Medline: 19951012

AB Treatment with ultrasound has been employed to greatly enhance the sensitivity of commercially available latex agglutination tests for **fungal antigens**. This 5 min procedure detects 40 pg ml-1 of **Candida albicans** mannan and 70 pg ml-1 of Aspergillus fumigatus galactomannan, a 250 and 500-fold improvement respectively over conventional agglutination test sensitivities. The ultrasound-enhanced test offers the possibility of improved diagnosis and management of patients with systemical

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candidosis or invasive aspergillosis.

L3 ANSWER 16 OF 42 MEDLINE DUPLICATE 12
ACCESSION NUMBER: 95407713 MEDLINE
DOCUMENT NUMBER: 95407713 PubMed ID: 7677223
TITLE: Responses of T and B lymphocytes to a Paracoccidioides brasiliensis cell wall extract in healthy sensitized and nonsensitized subjects.
AUTHOR: Benard G; Durandy A; Assis C M; Hong M A; Orii N M; Sato M N; Mendes-Gianini M J; Lacaz C S; Duarte A J
CORPORATE SOURCE: Immunogenetics and Experimental Transplantation Laboratory, Faculdade de Medicina, Universidade de Sao Paulo, Brazil.
SOURCE: AMERICAN JOURNAL OF TROPICAL MEDICINE AND HYGIENE, (1995 Aug) 53 (2) 189-94.
Journal code: 0370507. ISSN: 0002-9637.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199510
ENTRY DATE: Entered STN: 19951026
Last Updated on STN: 19951026
Entered Medline: 19951013

AB Antigen-specific cellular immunity in paracoccidioidomycosis (PCM) has been poorly studied due to lack of standard in vitro lymphocyte proliferation assays. To standardize such an assay, we studied T and B cell responses to a Paracoccidioides brasiliensis cell wall extract (PbAg) in healthy subjects sensitized to either P. brasiliensis [Pb(+)Hc(-)] or to Histoplasma capsulatum [Hc(+)Pb(-)], and in nonsensitized persons. All subjects showed, as expected, a vigorous proliferative response to a control **fungal antigen** obtained from **Candida albicans**. Lymphocytes from Pb(+)Hc(-) donors, but not from Pb(-)Hc(-) donors, reacted to PbAg by proliferating in a dose-dependent manner with a maximum reaction after 6-9 days, suggesting a secondary specific immune response. Most activated cells were CD+CD4+ lymphocytes. However, Hc(+)Pb(-) donors' cells reacted with PbAg. Cross-reactivity with H. capsulatum was not unexpected, since both fungi, but not **C. albicans**, share cell wall immunogenic compounds. An enzyme-linked immunosorbent assay to detect human immunoglobulins (Ig) demonstrated that B cells from Pb(+)Hc(-) donors, but not from Pb(-)Hc(-) ones, reacted with PbAg by secreting high levels of IgG and IgM in 12-day culture supernatants. This secretion was possibly mediated by PbAg-activated CD4+ cells. We believe that analysis of T and B lymphocyte responses to PbAg will be useful in the investigation of the infection-associated immune impairment seen in some PCM patients.

L3 ANSWER 17 OF 42 SCISEARCH COPYRIGHT 2003 ISI (R)
ACCESSION NUMBER: 94:733817 SCISEARCH
THE GENUINE ARTICLE: PQ880
TITLE: SYSTEMIC BOVINE ASPERGILLOSIS AND ZYGOMYCOSIS IN DENMARK WITH REFERENCE TO PATHOGENESIS, PATHOLOGY, AND DIAGNOSIS
AUTHOR: JENSEN H E (Reprint)
CORPORATE SOURCE: ROYAL VET & AGR UNIV, DEPT PHARMACOL & PATHOBIOL, VET PATHOL LAB, BULOWSVEI 13, DK-1870 FREDERIKSBERG,

DENMARK (Reprint)
COUNTRY OF AUTHOR: DENMARK
SOURCE: APMIS, (1994) Vol. 102, Supp. 42, pp. 4-48.
ISSN: 0903-4641.
DOCUMENT TYPE: General Review; Journal
FILE SEGMENT: LIFE
LANGUAGE: ENGLISH
REFERENCE COUNT: 298

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB This thesis is a review of systemic aspergillosis and zygomycosis in Danish cattle with reference to pathogenesis, pathology, and diagnosis, based on the results described in the accompanying papers (I-XI). The spontaneously infected bovine material examined was obtained from cattle necropsied at the Laboratory of Veterinary Pathology, RVAU, from 1986 to 1992, and from specimens submitted to the NVL in the periods 1977-1988 (bovine lymph nodes) and 1983-1989 (bovine placentas and foetuses). The main topics dealt with in the review are as follows:

Chapter I

Pathogenesis and pathology of systemic bovine aspergillosis ann zygomycosis.

In Danish cattle the most important portal of entry for systemic aspergillosis and zygomycosis is the gastrointestinal tract where the omasum is the target organ. By contrast, the respiratory tract plays only an insignificant role as a portal of entry for systemic bovine mycoses in Denmark. The pathogenesis of aspergillosis and zygomycosis in cattle is poorly understood. In some cases reflux of acid abomasal content due to gastrointestinal atonia seems to provoke some of the omasal infections. In other cases, the major predisposing factors include stasis of content within the forestomachs, intensive treatment with antibacterial drugs, immunosuppression and hormonal alterations in the postpartum period, and effects of other infectious diseases.

Hyphae are the form in which aspergilli and zygomycetes are primarily infective and probably the means of spread within cattle. The spore form is also spread to a certain extent, but the importance of this in spontaneous infection remains to be clarified.

In cattle a number of forms of dissemination have been seen, but in both systemic aspergillosis and zygomycosis local extension due to proliferation and haematogenous spread of hyphae are the most important. A variety of organs may be infected by haematogenous spread. Spread of fungi to the fetoplacental unit of cattle is also believed to be haematogenous under natural circumstances in accordance with observations on experimental inoculations of pregnant cows, ewes, and mice. Moreover, spread of fungi from the placenta to the foetus, as seen both in cattle and mice, is predominantly established by direct growth and spread via the amniotic fluid. As a result, mycotic dermatitis is the most frequent lesion of foetuses. Also lymphogenic spread resulting in mycotic lymphadenitis occurs in Danish cattle, and in cases developing chronic infections, tuberculosis is an important differential diagnosis. Spread of fungi by implantation may be seen in severe cases where the agents are spread from one serosal lining to another.

The dominance of zygomycosis compared to aspergillosis in cases of chronic lesions is most probably related to the formation of satellite foci in chronic zygomycotic lesions, whereas hyphae within aspergillosis lesions are usually effectively contained and

eliminated.

Chapter II

Diagnosis of systemic bovine aspergillosis and zygomycosis.

Several highly sensitive and specific indirect immunohistochemical staining techniques were developed for identification of the most important agents causing systemic bovine aspergillosis and zygomycosis. Polyclonal antibodies raised against somatic antigens of Aspergillus spp., **C. albicans**, and the most important agents of systemic bovine zygomycosis, i.e. A. corymbifera, R. oryzae, and R. (Mucop) pusillus, were evaluated. By a combination of reactions obtained with appropriately diluted and heterologously absorbed antibodies, differentiation between some Aspergillus spp., genus Candida, and three genera of zygomycetes, Absidia, Rhizopus, and R. (Mucor) became possible. Moreover, we have developed a system, which should be suitable for use in most laboratories dealing with the diagnosis of systemic bovine aspergillosis and zygomycosis, encompassing a monoclonal rat IgM antibody against Aspergillus galactomannan, a monoclonal mouse IgG1 antibody against somatic antigens from A. corymbifera, and specific polyclonal rabbit IgG antibodies raised against Candida mannan. Moreover, in this system, enzyme immunohistochemical staining methods, i.e. the PAP and APAAP techniques, were applied. New tools for the diagnosis of systemic bovine aspergillosis and zygomycosis included techniques for antigen detection. An inhibition ELISA for Aspergillus galactomannan in bovine serum was found suitable for the diagnosis of some types of systemic bovine aspergillosis. A double-antibody sandwich ELISA was developed for the detection of somatic antigens from A. corymbifera in urine of cattle with systemic zygomycosis. Specific antigens were also detected in urine of cattle with systemic aspergillosis and zygomycosis by immunoblotting techniques.

Thus the occurrence of **fungal antigens** was confined to the serum and urine of cattle with systemic aspergillosis and zygomycosis, and a further refinement of the antigen assays will provide promising aids in the routine diagnosis of some types of systemic bovine aspergillosis and zygomycosis.

Chapter III

Conclusions and perspectives.

Future research into the pathogenesis of bovine aspergillosis and zygomycosis should consider the initiation of infection and the contribution of spores to the infection processes.

The importance of using immunological techniques in the diagnosis of systemic bovine aspergillosis and zygomycosis is discussed, and the development of additional monoclonal antibodies against specific antigens of fungi will probably lead to refinements in immunohistochemical techniques as well as in techniques to detect **fungal antigens** in body fluids. Furthermore, application of monoclonal antibodies will contribute to the standardization and availability of such methods.

It is concluded that the diagnosis of systemic bovine aspergillosis and zygomycosis should be based on a careful interpretation of all the available information, i.e. clinical observations, microbiological data, pathological reactions, histomorphological criteria, and, in particular, immunological reactivity.

L3 ANSWER 18 OF 42 MEDLINE DUPLICATE 13
ACCESSION NUMBER: 93359187 MEDLINE

DOCUMENT NUMBER: 93359187 PubMed ID: 8354480
TITLE: Murine monoclonal antibodies to glycoprotein antigens of Aspergillus fumigatus show cross-reactivity with other fungi.
AUTHOR: Kumar A; Kurup V P
CORPORATE SOURCE: Department of Medicine, Medical College of Wisconsin, V.A. Medical Center, Milwaukee 53295-1000.
SOURCE: ALLERGY PROCEEDINGS, (1993 May-Jun) 14 (3) 189-93. Journal code: 8902396. ISSN: 1046-9354.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199309
ENTRY DATE: Entered STN: 19931008
Last Updated on STN: 19931008
Entered Medline: 19930921

AB Six monoclonal antibodies produced against Aspergillus fumigatus were studied for their cross-reactivity against other **fungal antigens** from related and unrelated organisms. Five of the monoclonal antibodies reacted with glycoprotein antigens as evidenced by their binding to concanavalin A, although one did not react with concanavalin A. The reactivities of the monoclonal antibodies with various antigens were studied by biotin-avidin linked immunosorbent assay and Western blots. The results indicate that two monoclonal antibodies (Asp D1 and Asp C9) react with antigens from aspergilli as well as other fungi including Penicillium notatum and **Candida albicans**, whereas three of six antibodies (Asp H10, Asp ILB8, and Asp C2B1) react with A. fumigatus antigen only. Hence, these monoclonal antibodies can be used to obtain group specific and species specific antigens for various immunodiagnostic assays.

L3 ANSWER 19 OF 42 MEDLINE DUPLICATE 14
ACCESSION NUMBER: 92207032 MEDLINE
DOCUMENT NUMBER: 92207032 PubMed ID: 1554325
TITLE: A case report of pulmonary infiltration with eosinophilia syndrome induced by Candida albicans.
AUTHOR: Miyagawa H; Yokota S; Kajimoto K; Makimoto K; Sato K; Nabe M; Tada S; Kimura I
CORPORATE SOURCE: Second Department of Internal Medicine, Okayama University Medical School.
SOURCE: ARERUGI. JAPANESE JOURNAL OF ALLERGOLOGY, (1992 Jan) 41 (1) 49-55. Journal code: 0241212. ISSN: 0021-4884.
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Japanese
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199204
ENTRY DATE: Entered STN: 19920509
Last Updated on STN: 19920509
Entered Medline: 19920430

AB A sixty six-year-old female who had been treated for bronchial asthma for about 25 years was admitted to the hospital with complaints of episodes of dyspnea, eosinophilia and infiltrative shadows in the chest X-ray film. An infiltrative shadow appeared to move from the left to the right lung field and finally formed a

shadow of atelectasis in the middle field of the right lung. A sputum culture showed only **Candida albicans**. Allergic and immunologic examination revealed high IgE serum levels with specific IgE against **Candida albicans** in high titer, and Aspergillus fumigatus in low titer. The precipitating antibody was shown only against Candida antigen. Additionally, the blastogenic response to Candida antigen was high in comparison with other **fungal antigens** including Aspergillus fumigatus. The clinical features and laboratory findings of this patient were found to satisfy Rosenberg's criteria for allergic bronchopulmonary aspergillosis (ABPA), except for the existence of **Candida albicans** in place of Aspergillus species as the causative antigen. The pathogenesis of PIE syndrome has been studied and various allergic mechanisms against many antigens reported. In this patient **Candida albicans** could be playing the crucial role in the formation of PIE syndrome, which might be best described as allergic bronchopulmonary candidiasis (ABPC).

L3 ANSWER 20 OF 42 WPIDS (C) 2003 THOMSON DERWENT
ACCESSION NUMBER: 1992-132938 [17] WPIDS
DOC. NO. NON-CPI: N1992-099150
DOC. NO. CPI: C1992-062235
TITLE: Enzyme immunoassay for Candida mannan antigen - using specific monoclonal antibody solid phase capture reagent, for diagnosis, detecting antigen from species.
DERWENT CLASS: B04 D16 S03
INVENTOR(S): GRUNOW, R; HENTSCHEL, C; KONIG, S; MEHL, M; PFULLER, R; STARKE, R
PATENT ASSIGNEE(S): (UYBE) HUMBOLDT-UNIV BERLIN
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
DD 296162	A	19911121	(199217)*		4

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
DD 296162	A	DD 1990-340063	19900424

PRIORITY APPLN. INFO: DD 1990-340063 19900424
AN 1992-132938 [17] WPIDS
AB DD 296162 A UPAB: 19931006
Immunoassay comprises using monoclonal antibody (MAb) which recognises candida mannen antigen (CAM) for solid-phase immobilisation. Test kit for detecting CAM comprises (1) microtitre plate coated with MAb, specifically the murine IgM CB-CAM-M1, (2) peroxidase-labelled CB-CAM-M1 (AbL), (3) substrate mixt. for peroxidase detection, (4) stop reagent for the peroxidase reaction and (5) incubation buffers for antigen and conjugate. Pref. CB-CAM-M1 is produced by the hybridoma H-CB-CAM-M1 (ZIM-0483).
USE/ADVANTAGE - Used (a) for quality control of various antigen prepns., (b) for specific investigations of various yeasts and (c)

medical diagnosis to detect **fungal antigens** in serum and to identify mycoses. MAb detect CAM from **C. albicans** and also from other Candida species. Detection limits for CAM are pref. **C. albicans** 28 microg/l. C. parapsilosis 6 microg/ml. and C. tropicalis 18 microg/l. (0/0)
0/0

L3 ANSWER 21 OF 42 MEDLINE DUPLICATE 15
ACCESSION NUMBER: 92155950 MEDLINE
DOCUMENT NUMBER: 92155950 PubMed ID: 1787076
TITLE: Imaging of systemic Candida albicans infections with a radioiodinated monoclonal antibody: experimental study in the guinea pig.
AUTHOR: Poulain D; Deveaux M; Cailliez J C; Hossein-Foucher C; Dutoit E; Camus D; Van Cutsem J; Marchandise X
CORPORATE SOURCE: Unite INSERM 42 de Biologie et Biochimie Parasitaires et Fongiques, Domaine du CERITA, Villeneuve d'Ascq.
SOURCE: INTERNATIONAL JOURNAL OF RADIATION APPLICATIONS AND INSTRUMENTATION. PART B, NUCLEAR MEDICINE AND BIOLOGY, (1991) 18 (7) 677-86.
Journal code: 8611098. ISSN: 0883-2897.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199203
ENTRY DATE: Entered STN: 19920410
Last Updated on STN: 20000303
Entered Medline: 19920323

AB Guinea pigs intravenously infected with **Candida albicans** were scanned to evaluate the use of radioiodinated monoclonal antibodies (MAb) to **fungal antigens** for detecting tissue infection sites. A total of 18 infected and 8 uninfected animals were used. MAb and F(ab')2 fragments directed against cell wall glycoproteins of **C. albicans** were labeled with 131I. Another MAb directed against a Schistosoma mansoni glycoprotein was labeled with 125I and used as a nonspecific control. Radiolabeled MAbs were injected at a dose of 12.5 micrograms (500 kBq) per animal. Images were acquired 24 h later. Animals were then killed and the dissected organs were separately gamma-counted. The number of **C. albicans** colony forming units (cfu) per gram was determined in each organ. A clear relationship was found between the anatomic distributions of **C. albicans** and 131I. The biodistribution of 131I radioactivity associated with anti-Candida MAb was greater in infected animals than in healthy animals and increased with the number of cfu per g in each organ. The distribution was highly specific in animals with Candida endophthalmitis, a pathognomic feature of organ involvement during hematogenous dissemination. In contrast, the distribution of 125I radioactivity associated with the nonspecific MAb was similar in healthy and infected animals. In infected animals, it was totally independent of the intensity of fungal infection.

L3 ANSWER 22 OF 42 SCISEARCH COPYRIGHT 2003 ISI (R)
ACCESSION NUMBER: 91:531155 SCISEARCH
THE GENUINE ARTICLE: GF954

TITLE: IMAGING OF SYSTEMIC CANDIDA-ALBICANS INFECTIONS WITH A RADIOIODINATED MONOCLONAL-ANTIBODY - EXPERIMENTAL-STUDY IN THE GUINEA-PIG

AUTHOR: POULAIN D (Reprint); DEVEAUX M; CAILLIEZ J C; HOSSEINFOUCHER C; DUTOIT E; CAMUS D; VANCUTSEM J; MARCHANDISE X

CORPORATE SOURCE: CHU LILLE, SERV PARASITOL MYCOL, F-59037 LILLE, FRANCE; CHU LILLE, HOP HURIEZ, SERV MED NUCL, F-59037 LILLE, FRANCE; JANSSEN RES FDN, DEPT BACTERIOL & MYCOL, B-2340 BEERSE, BELGIUM

COUNTRY OF AUTHOR: FRANCE; BELGIUM

SOURCE: NUCLEAR MEDICINE AND BIOLOGY, (1991) Vol. 18, No. 7, pp. 677-686.

DOCUMENT TYPE: Article; Journal

FILE SEGMENT: LIFE

LANGUAGE: ENGLISH

REFERENCE COUNT: 32

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Guinea pigs intravenously infected with **Candida albicans** were scanned to evaluate the use of radioiodinated monoclonal antibodies (MAb) to **fungal antigens** for detecting tissue infection sites. A total of 18 infected and 8 uninfected animals were used. MAb and F(ab')2 fragments directed against cell wall glycoproteins of **C. albicans** were labeled with I-131. Another MAb directed against a Schistosoma mansoni glycoprotein was labeled with I-125 and used as a nonspecific control. Radiolabeled MAbs were injected at a dose of 12.5-mu-g (500 kBq) per animal. Images were acquired 24 h later. Animals were then killed and the dissected organs were separately gamma-counted. The number of **C. albicans** colony forming units (cfu) per gram was determined in each organ. A clear relationship was found between the anatomic distributions of **C. albicans** and I-131. The biodistribution of I-131 radioactivity associated with anti-Candida MAb was greater in infected animals than in healthy animals and increased with the number of cfu per g in each organ. The distribution was highly specific in animals with Candida endophthalmitis, a pathognomic feature of organ involvement during hematogenous dissemination. In contrast, the distribution of I-125 radioactivity associated with the nonspecific MAb was similar in healthy and infected animals. In infected animals, it was totally independent of the intensity of fungal infection.

L3 ANSWER 23 OF 42 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. DUPLICATE 16

ACCESSION NUMBER: 1991:526029 BIOSIS

DOCUMENT NUMBER: BA92:137489

TITLE: SEROLOGICAL DIAGNOSIS OF DEEP-SEATED MYCOSES.

AUTHOR(S): KOHNO S

CORPORATE SOURCE: 2ND DEP. INTERN. MED., NAGASAKI UNIV., SCH. MED., JAPAN.

SOURCE: ASIAN MED J, (1991) 34 (8), 460-466.
CODEN: ASMJAB. ISSN: 0004-461X.

FILE SEGMENT: BA; OLD

LANGUAGE: English

AB In deep seated mycoses, no antibodies are produced in many patients because they are immunocompromised hosts, making serodiagnosis uncertain. Consequently, the diagnosis is often made from the

autopsy findings. However, the development of diagnostic techniques for the detection of antigens has brought to our attention various **fungal antigens** such as mannan and .beta.-D-glucan (cell wall components of Candidae) and the metabolite D-arabinitol, because of their value for rapid diagnosis. In candidemia, the Limulus test based on the detection of .beta.-D-glucan was positive in 69% of patients and the latex agglutination test for mannan antigen was positive in 60%. Both tests were highly specific. Cand-Tec, based on the detection of thermolabile glycoprotein, was very sensitive but of low specificity. The detection of D-arabinitol was not sufficiently sensitive. It appears that if the 47-kilodalton cytoplasmic antigen of **Candida albicans** is used, an accurate and simple method for rapid diagnosis will be developed. In the case of aspergillosis, the diagnosis of aspergilloma based on antibody detection is highly sensitive, but invasive aspergillosis is difficult to diagnose because the detection of galactomannan has a low sensitivity. In cryptococcosis, a new latex agglutination test to detect capsular polysaccharide was positive in about 85% of patients with pulmonary cryptococcosis. This sensitive serodiagnostic technique appears to be very useful because it is highly specific.

L3 ANSWER 24 OF 42 MEDLINE
ACCESSION NUMBER: 90048729 MEDLINE
DOCUMENT NUMBER: 90048729 PubMed ID: 2814246
TITLE: [Current role of deep mycoses in infectious pathology].
Place actuelle des mycoses profondes dans la pathologie infectieuse.
AUTHOR: Drouhet E
SOURCE: REVUE DU PRATICIEN, (1989 Sep 1) 39 (19) 1651-6.
Journal code: 0404334. ISSN: 0035-2640.
PUB. COUNTRY: France
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: French
FILE SEGMENT: Foreign; AIDS
ENTRY MONTH: 198911
ENTRY DATE: Entered STN: 19900328
Last Updated on STN: 19900328
Entered Medline: 19891130

AB Deep mycoses present new aspects characterized by deep, visceral mycotic localisations and septicemia, particularly in immunocompromised conditions. In immunodepressed patients (leukaemia, transplantation), the granulopenia descending to 500 elements/ml leads not only to invasive aspergillosis and candidosis but also to infections due to opportunistic fungi exceptionally or never seen formerly. AIDS favours opportunistic fungi related to defective cellular immunity as Cryptococcus neoformans, responsible of severe meningoencephalitis and septicemia, as **Candida albicans** responsible of thrush and oesophagitis, but also true pathogenic fungi (Histoplasma capsulatum) becoming opportunistic in such conditions. **C. albicans** provokes in heroin addicts a new septicemic syndrome with cutaneous, ocular and osteoarticular lesions and in leukaemic patients hepatic micro-abscesses soon after the neutropenic phase induced by chemotherapy. New methods for immunologic diagnosis (research of circulating **fungal antigen**), for clinical diagnosis (scanning, magnetic resonance). New strategy of antifungal

chemotherapy (itraconazole, fluconazole) allow to a better knowledge and control of this new infectious pathology.

L3 ANSWER 25 OF 42 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1990:28702 BIOSIS
DOCUMENT NUMBER: BA89:15668
TITLE: HOMOLOGOUS AND HETEROLOGOUS ANTIBODY RESPONSES OF THE PATIENTS WITH ASPERGILLOSIS AGAINST YOUNG MYCELIA OF ASPERGILLI BY FLUORESCENCE ANTIBODY REACTION.
AUTHOR(S): MOON H-J; KWON H-H
CORPORATE SOURCE: DEP. MED. TECHNOL., SEOUL HEALTH JUNIOR COLLEGE, SEOUL 100-749, KOREA.
SOURCE: KOREAN J MYCOL, (1989) 17 (2), 82-90.
CODEN: HKCHDD. ISSN: 0253-651X.
FILE SEGMENT: BA; OLD
LANGUAGE: Korean
AB Detection of antibody against pathogenic fungi in serum specimens of the patients with pulmonary tuberculosis or other lung diseases has been carried out(male) using the indirect fluorescence antibody technique and immunodiffusion tests. Immunodiffusion tests revealed that 104(36.5%) out of 285 patients examined showed a positive precipitin reaction against one or more of **fungal antigens**. The majority of ID positive patients 64(61.5%) reacted with Aspergillus fumigatus antigen and 49(47.1%) patients reacted with **Candida albicans** antigen ID positive reaction to A. fumigatus was found little more frequently among male patients, while **Candida albicans** reactors were found more frequently among female patients. Age distribution of ID positive reactors was high(49.1-43.3%) in age group of 40-59 years, but least or none in age group of less than 30 years. Age of fungal mycelium used as antigen did not effect sensitivity of the indirect fluorescence (IF) technique in detecting antibody to A. fumigatus. Antibody class against A. fumigatus that showed highest titer was IgG and thus FITC labeled anti-IgG immunoglobulin should be preferable. As relative large amount of cell wall components of Aspergilli shared antigenically, a considerable cross-reaction was observed among A. fumigatus, A. flavus and A. niger, but not much with **C. albicans** . While (IF) has much better sensitivity when compared with ID, relative specificity of the latter procedure cannot be overried, so that they could be batter used together in order to obtain quantitative measurement of antibody with relative specificity.

L3 ANSWER 26 OF 42 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1989:215900 BIOSIS
DOCUMENT NUMBER: BR36:105114
TITLE: NEW DEVELOPMENTS IN THE SEROLOGICAL DIAGNOSIS OF CANDIDA INFECTION.
AUTHOR(S): MATTHEWS R C; BURNIE J P
CORPORATE SOURCE: DEP. OF MED. MICROBIOL., ST. BARTHOLOMEW'S HOSP., MED. COLL., WEST SMITHFIELD, LONDON EC 1A 7BE, U.K.
SOURCE: SYMPOSIUM ON NEW DEVELOPMENTS IN THE DIAGNOSIS AND TREATMENT OF SYSTEMIC FUNGAL INFECTIONS, UTRECHT, THE NETHERLANDS, DECEMBER 9, 1987. MYCOSES, (1988) 31 (SUPPL 2), 34-38.
CODEN: MYCSEU.
FILE SEGMENT: BR; OLD
LANGUAGE: English

L3 ANSWER 27 OF 42 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
DUPLICATE 17
ACCESSION NUMBER: 1989:204045 BIOSIS
DOCUMENT NUMBER: BA87:104949
TITLE: FUNGAL COMPLICATIONS IN PATIENTS WITH PULMONARY TUBERCULOSIS OR OTHER LUNG DISEASES.
AUTHOR(S): KIM S J; HONG Y P; KIM S O
CORPORATE SOURCE: KOREAN INST. TUBERCULOSIS, KOREAN NATL. TUBERCULOSIS ASSOC., SEOUL 150-046, KOREA.
SOURCE: KOREAN J MYCOL, (1988) 16 (1), 26-32.
CODEN: HKCHDD. ISSN: 0253-651X.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB At total of 1,192 patients, who complained a continued chronic cough, suptum or occasional hemoptysis, in spite of successful completion of antituberculos chemotherapy or had some suspected fungal infection, were included. Serum specimens were collected from all the patients studied and sputum or other specimens collected and cultured from the most of the patients. 405 (34.0%) cases of the total patients studied showed a positive precipitin reaction to the one or more of the **fungal antigens** on immunodiffusion tests and 303 cases of them were found to have been infected with Aspergilli, of which Aspergillus fumigatus was involved in 287 cases, followed by Aspergillus flavus (1.7%), Aspergillus nidulans (0.3%), Aspergillus niger (0.3%) and Aspergillus nidulans var. latus (0.1). Pricipitin antibodies were produced to **Candida albicans** (8.1%) and Pseudallerscheria boydii (0.8%). In the chest radiographs of 186 precipitin positive patients, distinct fungus ball shadows were seen in 47 cases and 45 cases of them were formed by A. fumigatus. The isolates from sputum specimens of 724 patients were aspergilli which were consisted of the 46.4% of the total fungal isolates. Identification of 137 yeast like fungi from the sputum specimens of 413 patients revealed that **C. albicans** (64.2%) was a commonest yeast flora.

L3 ANSWER 28 OF 42 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1988:92033 BIOSIS
DOCUMENT NUMBER: BA85:48805
TITLE: A SERIES OF SEROLOGICAL TESTS FOR THE DETECTION OF ANTIGENS AND SPECIFIC ANTIBODIES IN DEEP-SEATED CANDIDOSIS EXPERIMENTAL ASPECTS.
AUTHOR(S): HAUN U; RUECHEL R; SPIES A
CORPORATE SOURCE: INST. HYGIENE, KREUZBERGRING 57, D-3400 GOETTINGEN, FRG.
SOURCE: MYKOSEN, (1987) 30 (10), 472-482.
CODEN: MYKSAW. ISSN: 0027-5557.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB We describe a series of six serological tests for the diagnosis of deep-seated candidosis. The array comprises two commercial tests (antigen test, Ramco Inc., and antibody test, Roche), as well as four enzyme immunoassays which have been developed in this laboratory: an antigen test for detection of Candida-proteinase, the corresponding assays for monitoring of anti-proteinase antibodies, and two assays for monitoring of IgG and IgM against heterogenous metabolic antigesn of **C. albicans**. The highly

sensitive and specific proteinase antigen-test tolerates samples with high concentration of serum proteins. Proteinase antigen was detected in 10 out of 11 normal mice after intravenous infection with **C. albicans** blastospores. The proteinase antigen peaked between the second and fourth day after infection. A rise in corresponding antibodies was observed in all animals. No proteinase antigen was detected in sera of healthy human individuals; anti-proteinase antibody titers in these sera amounted up to 1:8000. In related ELISAs, using metabolic **fungal antigens**, titer vlaues of specific IgG and IgM amounted to 5120 and 1280, respectively. The six tests were carried out in an comparative study under diagnostic conditions, the results of which are the subject of a forthcoming communication.

L3 ANSWER 29 OF 42 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 87123706 EMBASE
DOCUMENT NUMBER: 1987123706
TITLE: Fungal complication in long term hospitalized patients with pulmonary tuberculosis.
AUTHOR: Seok Ki Lee; Sang Jae Kim
CORPORATE SOURCE: Seoul City Seodaemoon Hospital, Seoul, Korea, Republic of
SOURCE: Tuberculosis and Respiratory Diseases, (1987) 34/1 (57-62).
CODEN: KHCHAM
COUNTRY: Korea, Republic of
DOCUMENT TYPE: Journal
FILE SEGMENT: 051 Leprosy and other Mycobacterial Diseases
LANGUAGE: Korean
SUMMARY LANGUAGE: English
AB An investigation into fungal complication in long term hospitalized patients (173) with pulmonary tuberculosis in Seoul City Seodaemoon Hospital has been made by immunodiffusion tests, sputum culture, and chest radiography. Precipitating antibodies to the antigens of filamentous fungi were detected in sera from 25 patients (14.5%) and definite or suspected fungus ball shadows were seen in chest X-rays of 8 patients of which one was apparently formed by A. flavus and all the others by A. fumigatus. Most commonly involved species was A. fumigatus (11.0%), P. boydii and A. nidulans were involved in one and four cases respectively. Positive immunodiffusion to filamentous **fungal antigens** was more common in sputum negative (tubercle bacilli) patients and most often in cases with sputum negative cavities. Some patients produced precipitin bands to more than one species mainly due to cross reactivity of antigens and rarely due to mixed infection with some other fungi. The 13 patients showed a positive reaction to **C. albicans**, which was more common in bacillary cases than in abacillary cases, however their relevance to the clinical symptoms could not be determined.

L3 ANSWER 30 OF 42 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1987:3931 BIOSIS
DOCUMENT NUMBER: BA83:3931
TITLE: HETEROGENOUS ENZYME IMMUNOASSAY DETECTION OF ANTI CANDIDA-ALBICANS SPECIFIC IMMUNOGLOBULIN-ISOTYPES AND MANNAN ANTIGEN.
AUTHOR(S): PAULOVICOVA E; SANDULA J
CORPORATE SOURCE: INST. CHEMISTRY, CENTRE CHEMICAL RES., DUBRAVSKA CESTA 9, 842 38 BRATISLAVA, CSSR.

SOURCE: MYKOSEN, (1986) 29 (9), 393-398.
CODEN: MYKSAW. ISSN: 0027-5557.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB The serum levels of anti-**Candida albicans** IgA, IgG and IgM class antibodies were quantified by heterogeneous sandwich enzyme-immunoassay. The presence of polysaccharide antigen reactive with rabbit antiserum to **Candida albicans** was also demonstrated by this assay. The thermal dissociation of antigen-antibody complex was proved to be efficient in quantitative determination of **fungal antigens**. Using the methods of correlation analysis, the close relationship between Ig-isotypes was studied.The statistically significant correlation between IgG and IgA class (rx,y = 0.475), and IgA and IgM class (rx,y = 0.465) was revealed. The correlation between IgG and IgM class (rx,y = 0.375) for .alpha. = 0.01 was decreased significantly.

L3 ANSWER 31 OF 42 MEDLINE DUPLICATE 18
ACCESSION NUMBER: 85206322 MEDLINE
DOCUMENT NUMBER: 85206322 PubMed ID: 3888844
TITLE: Cross-reacting human and rabbit antibodies to antigens of Histoplasma capsulatum, Candida albicans, and Saccharomyces cerevisiae.
AUTHOR: Kumar B V; Medoff G; Kobayashi G S; Sieling W L
CONTRACT NUMBER: AI 07015 (NIAID)
AI 07172 (NIAID)
AI 16228 (NIAID)
SOURCE: INFECTION AND IMMUNITY, (1985 Jun) 48 (3) 806-12.
Journal code: 0246127. ISSN: 0019-9567.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198507
ENTRY DATE: Entered STN: 19900320
Last Updated on STN: 19970203
Entered Medline: 19850710
AB Using Western blots of electrophoretically separated antigens, we show that human antibodies react most frequently to antigens shared by three fungi (Histoplasma capsulatum, **Candida albicans**, and Saccharomyces cerevisiae). Reactivity to antigens specific for individual fungi was relatively uncommon. The pattern of reactivity could not distinguish infected patients from uninfected controls. Rabbits immunized with extracts of each fungus also produced antibodies to cross-reactive or shared antigens of the other two fungi. Furthermore, preimmune sera showed similar but lower reactivity with the same **fungal antigens**. We believe that the preimmunization antibodies, which probably resulted from earlier fungal colonization or inapparent infections, predisposed the immune responses elicited by the vaccinations. A similar mechanism likely explains the results with human sera.

L3 ANSWER 32 OF 42 MEDLINE DUPLICATE 19
ACCESSION NUMBER: 84270883 MEDLINE
DOCUMENT NUMBER: 84270883 PubMed ID: 6205283
TITLE: Morphologic and immunohistologic study of pyelonephritis in rats by various bacteria and fungi. Special reference to inflammatory changes and

localization of antigen.
AUTHOR: Nagai T
SOURCE: NEPHRON, (1984) 37 (4) 264-9.
Journal code: 0331777. ISSN: 0028-2766.
PUB. COUNTRY: Switzerland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198409
ENTRY DATE: Entered STN: 19900320
Last Updated on STN: 19900320
Entered Medline: 19840907

AB Experimental pyelonephritis induced in rats by a single intrarenal injection of Pseudomonas aeruginosa, Serratia marcescens, **Candida albicans**, and Cryptococcus neoformans was studied pathologically and immunohistologically. The lesions which develop following intrarenal inoculation were similar to those seen during the course of pyelonephritis in man. Localization of the whole bacteria and the amorphous bacterial antigens and the whole fungi and the amorphous **fungal antigens** in the inflammatory lesions persisted up to 10-12 and 6-8 weeks, respectively. After that, continued inflammatory changes in progressive scarring can evolve in the absence of persistent bacterial or **fungal antigens**. Rat gamma globulin was localized in the plasma cells of the renal inflammatory infiltrates from 5-6 days to the end of the experiment (14th week). The incidence of progressive renal sclerosis was high in case of Candida pyelonephritis. The possible roles of progressive renal scarring by **C. albicans** are discussed.

L3 ANSWER 33 OF 42 MEDLINE DUPLICATE 20
ACCESSION NUMBER: 83115196 MEDLINE
DOCUMENT NUMBER: 83115196 PubMed ID: 7155183
TITLE: Widespread cutaneous candidiasis and tinea infection masking mycosis fungoides.
AUTHOR: Alteras I; David M; Feuerman E J; Morojonski G
SOURCE: MYCOPATHOLOGIA, (1982 Nov 19) 80 (2) 83-8.
Journal code: 7505689. ISSN: 0301-486X.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198303
ENTRY DATE: Entered STN: 19900318
Last Updated on STN: 19900318
Entered Medline: 19830317

AB A 71-year-old female with a widespread double mycotic infection caused by **C. Albicans** and T. rubrum was discovered to be suffering from mycosis fungoides. Clinically she was found to have large, polycyclic erythematous plaques with scaly, slightly infiltrated borders, covering almost all areas of the glabrous skin, and also involving the scalp (with no hair penetration), the soles and palms, toe-webs, finger and toe nails; there was also perleche and oral thrush. Cultures yielded **C. albicans** from most of the skin lesions, from the scalp, mouth, finger nails and urine and stool specimens, and T. rubrum from intermingled skin specimens, from the palms and soles and toe-nails. Blood culture was negative as were intracutaneous tests

with **fungal antigens** and tuberculin.
Histological examination confirmed the fungal invasion of the horny layer and at the same time revealed an underlying pathologic picture of mycosis fungoides, the lesions having been masked by the mycotic eruption. Intensive cytostatic and antifungal therapy led to a transient improvement but shortly thereafter there was a relapse of the fungal and lymphoproliferative manifestations and the patient died in septic shock.

L3 ANSWER 34 OF 42 MEDLINE DUPLICATE 21
ACCESSION NUMBER: 82097031 MEDLINE
DOCUMENT NUMBER: 82097031 PubMed ID: 7033116
TITLE: The effect of delayed addition of antigen and 'E' rosetting on the proliferative response to mycobacterial antigens of peripheral blood lymphocytes from normal individuals or from patients with tuberculosis or leprosy.
AUTHOR: Bahr G M; Rook G A; Stanford J L; Lydyard P M; Bryceson A D
SOURCE: IMMUNOLOGY, (1981 Nov) 44 (3) 585-91.
Journal code: 0374672. ISSN: 0019-2805.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198203
ENTRY DATE: Entered STN: 19900317
Last Updated on STN: 19900317
Entered Medline: 19820322

AB Some suppressor cells are reported to lose their activity when precultured without stimulus in vitro. We have investigated the role of such suppressors in responsiveness to mycobacterial antigens of peripheral blood mononuclear cells (PBMNC) from patients with leprosy or tuberculosis, or from normal donors. Delayed addition of mycobacterial antigens (Mycobacterium leprae, Mycobacterium vaccae and Mycobacterium tuberculosis), but not of a **fungal antigen** (**Candida albicans**) caused enhanced responses using PBMNC from most normal donors, or tuberculoid leprosy (TT/BT) patients. However, the effect was less common using PBMNC from the lepromatous leprosy (BL/LL) group. (P less than 01.01, using M. leprae, relative to the TT/BT group), suggesting that this type of suppression reflects a normal mechanism, which is diminished rather than increased in anergic patients. Delayed addition of antigens to 'E'-rosetting cells did not result in enhanced responses. However, the different effects of 'E'-rosetting on the responses to the mycobacterial antigens of cells from normals, TT/BT and BL/LL patients, suggested that there may be two types of proliferative response to these antigens.

L3 ANSWER 35 OF 42 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1981:254039 BIOSIS
DOCUMENT NUMBER: BA72:39023
TITLE: THE POSSIBLE ROLE OF FUNGAL SENSITIZATION IN THE PATHOGENESIS OF GENERALIZED ESSENTIAL PRURITUS.
AUTHOR(S): ALTERAS I; GRUNWALD M
CORPORATE SOURCE: DEP. DERMATOL., BEILINSON MED. CENT., TEL AVIV UNIV. MED. SCH., PETAH TIKVA, ISR.
SOURCE: MYKOSEN, (1981) 24 (2), 107-110.

CODEN: MYKSAW. ISSN: 0027-5557.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB Forty patients complaining of severe generalized pruritus (most of them over the age of 50) were investigated for the presence of mycotic infection. No pruritic dermatitis or other systemic disease was found in any of these patients. Scrapings collected from 8 different sites revealed a predominance of fungous invasion in the toe-webs and toe nails, followed by the soles and finger nails, with clinical evidence of involvement in only 13 patients. Trichophyton rubrum was isolated in 53% of the cases, T. mentagrophytes in 35% and **Candida albicans** in 12%. Intracutaneous tests with candidin and trichophytin showed a positive delayed type response of the former in 10 patients and of the latter in 3. A positive reaction to both antigens was found in another 3 cases. Immunotherapy with trichophytin and candidin carried out in 16 patients with positive responses to **fungal antigens** led to a significant improvement in the pruritus in 3 patients, a lesser improvement in 6 and no change in 4. The other 3 cases were under follow-up for less than 3 mo. and were not included in the evaluation. The role of fungal sensitization and the possible benefits of immunotherapy are discussed briefly.

L3 ANSWER 36 OF 42 MEDLINE DUPLICATE 22
ACCESSION NUMBER: 79240588 MEDLINE
DOCUMENT NUMBER: 79240588 PubMed ID: 469266
TITLE: The occurrence and treatment of false positive reactions in enzyme-linked immunosorbent assays (ELISA) for the presence of fungal antigens in clinical samples.
AUTHOR: Warren R C; White L O; Mohan S; Richardson M D
SOURCE: JOURNAL OF IMMUNOLOGICAL METHODS, (1979) 28 (1-2) 177-86.
Journal code: 1305440. ISSN: 0022-1759.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197910
ENTRY DATE: Entered STN: 19900315
Last Updated on STN: 19900315
Entered Medline: 19791017
AB Non-specific positive reactions have been revealed in enzyme-linked immunosorbent assays (ELISA) of sera for the presence of **fungal antigen**. These false positives were recognized by their occurrence in tests for both **Candida albicans** and Aspergillus fumigatus antigens and by their response to dithiothreitol, combined with their reaction with non-immune rabbit globulin. A scheme is proposed which differentiates between true and false positive reactions. Use of fractionated anti-fungal globulin in conjugates reduced the incidence of false positive results in sera from hospitalized patients and eliminated them from sera of healthy subjects. The test scheme was applied to two panels of sera containing samples from patients with (a) invasive candidosis and (b) invasive aspergillosis. The relevance of ELISA tests for the detection of **fungal antigen** in human serum is discussed.

L3 ANSWER 37 OF 42 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1979:136401 BIOSIS
DOCUMENT NUMBER: BA67:16401
TITLE: THE 60TH ANNIVERSARY OF SOVIET MEDICAL MYCOLOGY.
AUTHOR(S): KASHKIN P N
CORPORATE SOURCE: S.M. KIROV STATE INST. POSTGRAD. MED., LENINGRAD, USSR.
SOURCE: MIKOL FITOPATOL, (1977 (RECD 1978)) 11 (5), 369-377. CODEN: MIFIB2. ISSN: 0026-3648.
FILE SEGMENT: BA; OLD
LANGUAGE: Russian
AB The results of studies in medical mycology in the USSR during 1967-1977 are reviewed, particularly concerning the biology and antigenicity of causal agents, the immunology of deep mycoses, mycogenic sensitization and epidemiology of fungal diseases. The chemical composition, enzymes and antigenic properties of pathogenic fungi, including Trichophyton rubrum, T. mentagrophytes, Coccidioides immitis, **Candida albicans**, C. tropicalis and Pityrosporum orbiculare, immunobiologic transformation caused in animals by **fungal antigens**, the role of fungi in the development of allergic diseases and natural reservoirs of pathogenic and keratinophilic fungi in the soil are discussed. Successes are reported in immunological methods for study of deep mycoses in humans, cats and dogs, immunotherapy of mycoses in humans and sanitary-hygienic measures such as disinfection of hospital areas with deep mycoses patients.

L3 ANSWER 38 OF 42 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1977:174269 BIOSIS
DOCUMENT NUMBER: BA63:69133
TITLE: PHAGOCYTE FUNCTION AND CELL MEDIATED IMMUNITY IN SYSTEMIC LUPUS ERYTHEMATOSUS.
AUTHOR(S): LANDRY M
SOURCE: ARCH DERMATOL, (1977) 113 (2), 147-154. CODEN: ARDEAC. ISSN: 0003-987X.
FILE SEGMENT: BA; OLD
LANGUAGE: Unavailable
AB Lymphocyte, granulocyte and macrophage function were studied simultaneously in 26 untreated patients with systemic lupus erythematosus (SLE) and 26 matched controls. The overall cellular response, as assessed in vivo by skin tests and sensitization to dinitrochlorobenzene, was diminished in the SLE group. Although T [thymus-derived] cells were reduced in number in patients with SLE, their function appeared unimpaired, as shown by normal lymphocyte transformation to phytohemagglutinin and bacterial and **fungal antigens** [purified protein derivative, histoplasmin, streptokinase, streptodornase, **Candida albicans**, mumps skin test antigen]. The depressed cutaneous reactivity observed in vivo was explained by the finding of major deficits in the efferent limb of cellular immunity. Initial rate of phagocytosis of polymorphonuclear neutrophils and macrophages was significantly reduced in patients with SLE as compared with normal persons. Because of cell interaction, the presence of an intrinsic macrophage defect in SLE may contribute to the alleged T- and B[bone marrow-derived]-cell dysfunction in that disease.

L3 ANSWER 39 OF 42 MEDLINE DUPLICATE 23

ACCESSION NUMBER: 77147114 MEDLINE
DOCUMENT NUMBER: 77147114 PubMed ID: 321971
TITLE: Counterimmunoelectrophoresis and opportunistic fungal infections.
AUTHOR: Smith J M
SOURCE: MYCOPATHOLOGIA, (1977 Feb 18) 60 (2) 99-104.
Journal code: 7505689. ISSN: 0301-486X.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197705
ENTRY DATE: Entered STN: 19900313
Last Updated on STN: 19900313
Entered Medline: 19770512

AB Sera from 35 apparently normal humans, 37 compromised human patients, 30 hedgehogs and 30 sheep, were examined for precipitating antibodies to four opportunistic fungi - Absidia corymbifera, Aspergillus fumigatus, **Candida albicans** and Rhizopus arrhizus-using counterimmunoelectrophoresis (CIE). Precipitins to A. fumigatus were almost exclusively confined to specimens obtained from the compromised human group (51% of those examined) while Candida precipitating antibodies were detected in the sera of both normal (26%) and compromised (49%) humans and in 10% of the hedgehog specimens. Serum precipitins against the two phycomycetes included in the investigations were rare. Because of the complexity of most **fungal antigen** extracts, it appears the two phycomycetes included in the investigations were rare. Beause of the complexity of most **fungal antigen** extracts, it appears essential that sera be tested against a number of different antigen concentrations if CIE is to be used with confidence in fungal serology.

L3 ANSWER 40 OF 42 MEDLINE DUPLICATE 24
ACCESSION NUMBER: 77062485 MEDLINE
DOCUMENT NUMBER: 77062485 PubMed ID: 793301
TITLE: Lymphocyte transformation in vitro in dermatophytosis.
AUTHOR: Svejgaard E; Thomsen M; Morling N; Hein Christiansen A H
SOURCE: ACTA PATHOLOGICA ET MICROBIOLOGICA SCANDINAVICA. SECTION C, IMMUNOLOGY, (1976 Dec) 84C (6) 511-23.
Journal code: 7508469. ISSN: 0304-1328.
PUB. COUNTRY: Denmark
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197701
ENTRY DATE: Entered STN: 19900313
Last Updated on STN: 19990129
Entered Medline: 19770129

AB Peripheral blood lymphocytes from 59 patients with dermatophytosis and from nine young healthy women were studied by the lymphocyte transformation test (LT) using mitogens and bacterial as well as **fungal antigens**. The latter included **Candida albicans** (CA) and four dermatophyte species, viz. Trichophyton rubrum (TR), Trichophyton mentagrophytes (TM), Epidermophyton floccosum (EF) and Microsporum canis (MF). Most

of the patients showed normal transformation in response to mitogens and non-dermatophyte antigens, indicating that they have no functional T-cell deficiency. Dermatophyte antigens act as stimulators in LT. In general, patient lymphocytes responded more strongly to these antigens than lymphocytes from controls. In most patients suffering from TM infections, response to the TM antigen was significantly stronger (p less than 0.05) than that in the other patients, indicating that this antigen preparation shows species specificity. In patients with Trichophyton (TR + TM) infections, response to the corresponding antigens was significantly stronger than that in the other patients, which suggests the existence of genus specificity. Any differences between patients suffering from chronic TR infections and those with acute TR infections were not observed, a finding which is in contrast to those obtained in other studies. However, a few patients with chronic TM infections responded weakly to mitogens and non-dermatophyte antigens. LT in four patients with id-reaction to TM infection was not found to differ from that in the remaining TM patients.

L3 ANSWER 41 OF 42 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1976:148713 BIOSIS
DOCUMENT NUMBER: BA61:48713
TITLE: SPECIFIC CELL MEDIATED IMMUNITY IN THE LABORATORY DIAGNOSIS OF DERMATOPHYTIC INFECTIONS.
AUTHOR(S): WALTERS B A J; BEARDMORE G L; HALLIDAY W J
SOURCE: BR J DERMATOL, (1976) 94 (1), 55-61.
CODEN: BJDEAZ. ISSN: 0007-0963.
FILE SEGMENT: BA; OLD
LANGUAGE: Unavailable

L3 ANSWER 42 OF 42 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 74054547 EMBASE
DOCUMENT NUMBER: 1974054547
TITLE: Antigen stimulation of 3H thymidine incorporation by subpopulations of human peripheral blood cells.
AUTHOR: Eisen S.A.; Lyle L.R.; Parker C.W.
CORPORATE SOURCE: Div. Immunol., Dept. Int. Med., Washington Univ. Sch. Med., St. Louis, Mo. 63110, United States
SOURCE: Journal of Immunology, (1973) 111/3 (962-972).
CODEN: JOIMA3
DOCUMENT TYPE: Journal
FILE SEGMENT: 026 Immunology, Serology and Transplantation
023 Nuclear Medicine
025 Hematology
LANGUAGE: English
AB Using human peripheral blood lymphocytes at various stages of purification it was re examined to see whether foreign proteins and hapten protein conjugates to which the cell donor has no known previous immunization can stimulate in vitro 3H thymidine incorporation. Responses were examined in dextran sedimented mixed leukocytes, purified lymphocytes isolated by isopycnic centrifugation in a Ficoll Hypaque gradient (FH cells), and FH cells that had been further purified by passage through a short nylon wool column (nylon purified cells). The dextran sedimented, FH, and nylon purified cells were cultured in autologous serum with various antigens for 5 days and the increase in 3H thymidine incorporation was measured. In mixed leukocytes and FH cells all of the antigens examined (bovine serum albumin, bovine .gamma. globulin,

Candida albicans, histoplasmin, trinitrophenyl bovine serum albumin, dinitrophenyl bovine serum albumin, and fluorescein bovine .gamma. globulin) produced a significant increase in 3H thymidine uptake. Appropriate controls indicated that the response could not be ascribed to endotoxin. Serum protein and **fungal antigens** stimulated nylon purified cells as well or better than the leukocyte or FH populations. Contrariwise, the three hapten protein conjugates inhibited 3H thymidine incorporation by nylon purified cells. Although there are several alternate possibilities, the authors favor the interpretation that the in vitro response to serum protein and **fungal antigens** represents a secondary immune phenomenon in which few if any monocytes are required, whereas stimulation by hapten protein conjugates involves a primary immune (monocyte dependent) response. However, the possibility that the hapten protein stimulation is a secondary response involving cells sensitized to cross reacting antigens is by no means excluded. The inhibition of nylon purified cells by hapten protein conjugates may conceivably represent an in vitro correlate of tolerance.

(FILE 'USPATFULL' ENTERED AT 11:01:48 ON 10 APR 2003)
L5 8 SEA FILE=USPATFULL ABB=ON PLU=ON (FUNG##(W)ANTIGEN)(S)((CANDID? OR C)(W)ALBICANS)

L5 ANSWER 1 OF 8 USPATFULL

ACCESSION NUMBER:	2003:78436 USPATFULL
TITLE:	Multiple reporter read-out for bioassays
INVENTOR(S):	Jacobson, James W., Leander, TX, UNITED STATES Burroughs, Jennifer L., Austin, TX, UNITED STATES Oliver, Kerry G., Austin, TX, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2003054356	A1	20030320	
APPLICATION INFO.:	US 2001-956857	A1	20010921	(9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-234430P	20000921 (60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	PATENT ADMINSTRATOR, KATTEN MUCHIN ZAVIS ROSENMAN, 525 WEST MONROE STREET, SUITE 1600, CHICAGO, IL, 60661-3693
NUMBER OF CLAIMS:	27
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	2 Drawing Page(s)
LINE COUNT:	1839

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method for detecting a plurality of reactive sites on an analyte, comprising allowing reactants on an addressable microsphere and the reactive sites to react, forming reactant-reactive site pairs distinguishable by fluorescence intensity. The invention also provides a method for detecting a plurality of analytes in a sample using addressable microspheres in combination with one or more reporter reagents. Also provided are a method for determining allele zygosity of a genetic locus having two alleles or more alleles using microparticles, and a

method for detecting a plurality of SNPs in nucleic acid molecules. The instant invention also provides a composition comprising an addressable microsphere carrying at least two fluorescent reactants capable of forming reactant-analyte pairs distinguishable by their fluorescence intensity, and kits comprising the inventive composition and a plurality of reporter reagents.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 435/006.000
NCL NCLM: 435/006.000

L5 ANSWER 2 OF 8 USPATFULL
ACCESSION NUMBER: 2003:71363 USPATFULL
TITLE: 37 staphylococcus aureus genes and polypeptides
INVENTOR(S): Choi, Gil H., Rockville, MD, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003049648	A1	20030313
APPLICATION INFO.:	US 2002-84205	A1	20020228 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. WO 2000-US23773, filed on 31 Aug 2000, UNKNOWN

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-151933P	19990901 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850
NUMBER OF CLAIMS: 21
EXEMPLARY CLAIM: 1
LINE COUNT: 9769
AB The present invention relates to novel genes from S. aureus and the polypeptides they encode. Also provided as are vectors, host cells, antibodies and recombinant methods for producing the same. The invention further relates to screening methods for identifying agonists and antagonists of S. aureus polypeptide activity. The invention additionally relates to diagnostic methods for detecting Staphylococcus nucleic acids, polypeptides and antibodies in a biological sample. The present invention further relates to novel vaccines for the prevention or attenuation of infection by Staphylococcus.

INCL INCLM: 435/006.000
INCLS: 435/007.320; 435/220.000; 435/069.100; 435/320.100; 435/252.300; 536/023.700
NCL NCLM: 435/006.000
NCLS: 435/007.320; 435/220.000; 435/069.100; 435/320.100; 435/252.300; 536/023.700

L5 ANSWER 3 OF 8 USPATFULL
ACCESSION NUMBER: 2003:57103 USPATFULL
TITLE: Anti-fungal composition
INVENTOR(S): Jira, Vic, El Monte, CA, UNITED STATES
Jirathitikal, Vichai, Chachoengsao, THAILAND

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003039667	A1	20030227
APPLICATION INFO.:	US 2002-228280	A1	20020827 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-314666P	20010827 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: BLANK ROME COMISKY & MCCAULEY, LLP, 900 17TH STREET, N.W., SUITE 1000, WASHINGTON, DC, 20006
NUMBER OF CLAIMS: 15
EXEMPLARY CLAIM: 1
LINE COUNT: 1664
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A multivalent fungal vaccine comprising one or more heat-inactivated fungal antigens, wherein at least one fungal antigen is effective in producing an immune response in a host when said vaccine is administered orally at a dose that is sufficient for preventing or treating the fungal disease in said host. Also described are methods for making and using an orally available anti-fungal vaccine.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 424/274.100
INCLS: 424/195.150
NCL NCLM: 424/274.100
NCLS: 424/195.150

L5 ANSWER 4 OF 8 USPATFULL
ACCESSION NUMBER: 2002:192264 USPATFULL
TITLE: Staphylococcus aureus polynucleotides and polypeptides
INVENTOR(S): Choi, Gil H., Rockville, MD, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002103338	A1	20020801
APPLICATION INFO.:	US 2001-925637	A1	20010810 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. WO 2000-US23773, filed on 31 Aug 2000, UNKNOWN Continuation-in-part of Ser. No. US 1997-781986, filed on 3 Jan 1997, PENDING Continuation-in-part of Ser. No. US 1997-956171, filed on 20 Oct 1997, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-151933P	19990901 (60)
	US 1996-9861P	19960105 (60)
	US 1996-9861P	19960105 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850
NUMBER OF CLAIMS: 96
EXEMPLARY CLAIM: 1

LINE COUNT: 9945
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to novel genes from S. aureus and the polypeptides they encode. Also provided are vectors, host cells, antibodies and recombinant methods for producing the same. The invention further relates to screening methods for identifying agonists and antagonists of S. aureus polypeptide activity. The invention additionally relates to diagnostic methods for detecting Staphylococcus nucleic acids, polypeptides and antibodies in a biological sample. The present invention further relates to novel vaccines for the prevention or attenuation of infection by Staphylococcus.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 530/350.000
INCLS: 536/023.700; 435/320.100; 435/325.000; 435/252.300; 435/069.100
NCL NCLM: 530/350.000
NCLS: 536/023.700; 435/320.100; 435/325.000; 435/252.300; 435/069.100

L5 ANSWER 5 OF 8 USPATFULL
ACCESSION NUMBER: 2002:160698 USPATFULL
TITLE: Induction of immune response against desired determinants
INVENTOR(S): Sette, Alessandro, La Jolla, CA, United States
Gaeta, Federico, San Rafael, CA, United States
Grey, Howard M., La Jolla, CA, United States
Sidney, John, San Diego, CA, United States
Alexander, Jeffrey L., San Diego, CA, United States
PATENT ASSIGNEE(S): Epimmune Inc., San Diego, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6413935	B1	20020702
APPLICATION INFO.:	US 1997-788822		19970123 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1994-305871, filed on 14 Sep 1994, now patented, Pat. No. US 5736142, issued on 7 Apr 1998
Continuation-in-part of Ser. No. US 1993-121101, filed on 14 Sep 1993, now abandoned

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-10510P	19960124 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Nolan, Patrick J.
LEGAL REPRESENTATIVE: Townsend and Townsend and Crew LLP
NUMBER OF CLAIMS: 52
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 19 Drawing Figure(s); 6 Drawing Page(s)
LINE COUNT: 2726
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides compositions and methods of inducing immune response in patients. In particular, it provides

compositions useful in inducing humoral resposes against desired immunogens, particularly polysaccharides.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 514/014.000
INCLS: 530/402.000; 530/403.000; 530/300.000; 530/327.000; 424/185.100; 424/193.100
NCL NCLM: 514/014.000
NCLS: 424/185.100; 424/193.100; 530/300.000; 530/327.000; 530/402.000; 530/403.000

L5 ANSWER 6 OF 8 USPATFULL
ACCESSION NUMBER: 2002:112558 USPATFULL
TITLE: Fungal antigens and process for producing the same
INVENTOR(S): Takesako, Kazutoh, Otsu-shi, JAPAN
Mizutani, Shigetoshi, Gamo-gun, JAPAN
Endo, Masahiro, Kusatsu-shi, JAPAN
Kato, Ikunoshin, Uji-shi, JAPAN
PATENT ASSIGNEE(S): TAKARA SHUZO CO., LTD, Kyoto, JAPAN (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002058293	A1	20020516
APPLICATION INFO.:	US 2001-987190	A1	20011113 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 1999-262856, filed on 4 Mar 1999, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	WO 1997-JP3041	19970829
	JP 1996-255400	19960904
	JP 1997-99775	19970331

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: BIRCH STEWART KOLASCH & BIRCH, PO BOX 747, FALLS CHURCH, VA, 22040-0747
NUMBER OF CLAIMS: 20
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 9 Drawing Page(s)
LINE COUNT: 3093
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB There can be provided a fungal antigen which is an insoluble fraction obtainable from fungal cells of which cell wall has been substantially removed or at least partially removed; a process for producing the same; a nucleic acid encoding the fungal antigen; a biologic product containing the fungal antigen; a method of stimulating immunological responses by using the biologic product; a method of suppressing allergic reaction to fungi in a vertebrate; and a method for diagnosing a disease caused by fungi in a vertebrate.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 435/007.310
INCLS: 424/185.100; 435/254.100; 435/069.300; 435/183.000; 435/320.100; 536/023.200
NCL NCLM: 435/007.310

NCLS: 424/185.100; 435/254.100; 435/069.300; 435/183.000; 435/320.100; 536/023.200

L5 ANSWER 7 OF 8 USPATFULL

ACCESSION NUMBER:	2002:48024 USPATFULL
TITLE:	NOVEL VACCINES AND PHARMACEUTICAL COMPOSITIONS USING MEMBRANE VESICLES OF MICROORGANISMS, AND METHODS FOR PREPARING SAME
INVENTOR(S):	KADURUGAMUWA, JAGATH L., GUELPH, CANADA BEVERIDGE, TERRY J., ELORA, CANADA

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002028215	A1	20020307
APPLICATION INFO.:	US 1999-370860	A1	19990809 (9)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	DOUGLAS P MUELLER, MERCHANT & GOULD PC, 3100 NORWEST CENTER, 90 SOUTH SEVENTH STREET, MINNEAPOLIS, MN, 55402
NUMBER OF CLAIMS:	17
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	35 Drawing Page(s)
LINE COUNT:	2647

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to novel vaccines and pharmaceutical compositions using membrane vesicles of microorganisms, methods for preparing same, and their use in the prevention and treatment of infectious diseases.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

INCL	INCLM: 424/234.100
NCL	NCLM: 424/234.100

L5 ANSWER 8 OF 8 USPATFULL

ACCESSION NUMBER:	2001:235097 USPATFULL
TITLE:	Fungal antigens and process for producing the same
INVENTOR(S):	Takesako, Kazutoh, Otsu, Japan Mizutani, Shigetoshi, Gamo-gun, Japan Endo, Masahiro, Kusatsu, Japan Kato, Ikunoshin, Uji, Japan
PATENT ASSIGNEE(S):	Takara Shuzo Co., Ltd., Kyoto, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6333164	B1	20011225
APPLICATION INFO.:	US 1999-262856		19990304 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. WO 1997-JP3041, filed on 29 Aug 1997		

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1996-255400	19960904
	JP 1997-99775	19970331

DOCUMENT TYPE:	Utility
FILE SEGMENT:	GRANTED

PRIMARY EXAMINER: Smith, Lynette R. F.
ASSISTANT EXAMINER: Baskar, Padma
LEGAL REPRESENTATIVE: Birch, Stewart, Kolasch & Birch, LLP
NUMBER OF CLAIMS: 12
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 9 Drawing Figure(s); 9 Drawing Page(s)
LINE COUNT: 2782
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB There can be provided a fungal antigen which is an insoluble fraction obtainable from fungal cells of which cell wall has been substantially removed or at least partially removed; a process for producing the same; a nucleic acid encoding the fungal antigen; a biologic product containing the fungal antigen; a method of stimulating immunological responses by using the biologic product; a method of suppressing allergic reaction to fungi in a vertebrate; and a method for diagnosing a disease caused by fungi in a vertebrate.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 435/007.300
INCLS: 435/007.200; 435/174.000; 435/177.000; 435/921.000; 435/922.000; 424/184.100; 424/274.100; 530/350.000; 530/395.000; 530/397.000; 530/399.000; 530/402.000; 530/405.000; 530/406.000; 530/408.000; 530/410.000
NCL NCLM: 435/007.300
NCLS: 424/184.100; 424/274.100; 435/007.200; 435/174.000; 435/177.000; 435/921.000; 435/922.000; 530/350.000; 530/395.000; 530/397.000; 530/399.000; 530/402.000; 530/405.000; 530/406.000; 530/408.000; 530/410.000

(FILE 'HCAPLUS, MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO, USPATFULL' ENTERED AT 11:02:41 ON 10 APR 2003)

L6	726	SEA	ABB=ON	PLU=ON	"TAKESAKO K"?/AU
L7	5362	SEA	ABB=ON	PLU=ON	"MIZUTANI S"?/AU
L8	19078	SEA	ABB=ON	PLU=ON	"ENDO M"?/AU
L9	8187	SEA	ABB=ON	PLU=ON	"KATO I"?/AU
L10	25	SEA	ABB=ON	PLU=ON	L6 AND L7 AND L8 AND L9
L11	297	SEA	ABB=ON	PLU=ON	L6 AND (L7 OR L8 OR L9)
L12	64	SEA	ABB=ON	PLU=ON	L7 AND (L8 OR L9)
L13	103	SEA	ABB=ON	PLU=ON	L8 AND L9
L14	164	SEA	ABB=ON	PLU=ON	(L6 OR L7 OR L8 OR L9 OR L10 OR L11 OR L12 OR L13) AND ALBICANS
L15	94	DUP REM	L14	(70 DUPLICATES REMOVED)	
L16	5	SEA	ABB=ON	PLU=ON	L15 AND FUNG##(W) ANTIGEN

- Author (S)

L16 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:585454 HCAPLUS
DOCUMENT NUMBER: 129:259317
TITLE: Cloning of cDNA for **fungal antigen** and clinical use of the antigen
INVENTOR(S): **Takesako, Kazutada; Mizutani, Shigetoshi; Endo, Masahiro; Kato, Ikunoshin**
PATENT ASSIGNEE(S): Takara Shuzo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10234379	A2	19980908	JP 1997-61807	19970227

PRIORITY APPLN. INFO.: JP 1997-61807 19970227

AB An antigen of fungi is prepd. from the water-sol. portion of fungal protoplasts or spheroplasts. The antigen can be used as a diagnostic, prophylactic, and therapeutic agent for fungal disease such as allergy. A 28,000-Dalton antigen (Ca-HSS) was isolated from the water-sol. portion of the protoplasts past prepd. from Candida **albicans** strain TIMM 1768. A cDNA library of C. **albicans** strain TIMM 1768 was screened with an antibody to Ca-HSS to obtain clone p7B that encodes the N-terminal fragment of the Ca-HSS antigen. Use of the Ca-HSS antigen for desensitization of fungi-assocd. allergy was also described. A 27,000-Dalton antigen from C. **albicans** strain TIMM and its partial amino acid sequence were also shown.

L16 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:175948 HCAPLUS
DOCUMENT NUMBER: 128:242885
TITLE: **Fungal antigens** and process for producing the same
INVENTOR(S): **Takesako, Kazutoh; Mizutani, Shigetoshi; Endo, Masahiro; Kato, Ikunoshin**
PATENT ASSIGNEE(S): Takara Shuzo Co., Ltd., Japan; Takesako, Kazutoh; Mizutani, Shigetoshi; Endo, Masahiro; Kato, Ikunoshin
SOURCE: PCT Int. Appl., 108 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9809990	A1	19980312	WO 1997-JP3041	19970829
W: AU, BG, BR, CA, CN, CZ, HU, JP, KR, MX, NO, NZ, PL, RO, SG, SK, US, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9740327	A1	19980326	AU 1997-40327	19970829
AU 725733	B2	20001019		
EP 970966	A1	20000112	EP 1997-937856	19970829
R: DE, FR, GB, IT, NL				
US 6333164	B1	20011225	US 1999-262856	19990304
US 2002058293	A1	20020516	US 2001-987190	20011113

PRIORITY APPLN. INFO.:
JP 1996-255400 A 19960904
JP 1997-99775 A 19970331
WO 1997-JP3041 W 19970829
US 1999-262856 A3 19990304

AB Disclosed are **fungal antigens** which are insol. fractions obtained from fungal cells from which the cell membrane

has been substantially or at least partly eliminated; a process for producing the same; nucleic acids encoding these **fungal antigens**; biol. prepns. contg. the above **fungal antigens**; a method for stimulating immune responses with the use of the above biol. prepns.; a method for regulating allergic reactions of vertebrates against fungi; and a method for diagnosing diseases of vertebrates caused by fungi, etc. These antigens are derived from organelle, e.g. mitochondria, nucleus, lysosome of fungus, such as Candida, Aspergillus, Cryptococcus, Mucor, Rhizopus, Absidia, Nocardia, Histoplasma, Blastomyces, Coccidioides, Trichophyton, Microsporum, Epidermophyton, Sporothrix, Dematiaceous fungi, Malassezia, Pneumocystis, Penicillium, Alternaria, Cladosporium, Botrytis, Aureobasidium, Fusarium, Trichoderma, Helminthosporium, Neurospora, Wallemia, and Rhodotorula. Thus, Candida **albicans** antigen and cDNA were prepd.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 3 OF 5 JAPIO COPYRIGHT 2003 JPO
ACCESSION NUMBER: 1999-092398 JAPIO
TITLE: COMPOSITION FOR MEDICINE
INVENTOR: **TAKESAKO KAZUTADA; ENDO MASAHIRO; MIZUTANI SHIGETOSHI;** KATOU IKUNOSHIN
PATENT ASSIGNEE(S): TAKARA SHUZO CO LTD
PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 11092398	A	19990406	Heisei	A61K039-00

APPLICATION INFORMATION
STN FORMAT: JP 1997-258963 19970924
ORIGINAL: JP09258963 Heisei
PRIORITY APPLN. INFO.: JP 1997-258963 19970924
SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1999

AN 1999-092398 JAPIO
AB PROBLEM TO BE SOLVED: To obtain a medicinal composition having low toxicity and side effects, capable of expressing an excellent fungal infection-protecting effect and useful for the prevention or treatment of fungal infection or allergy and the detection of the presence or absence of sensibilization to a fungus by including a **fungal antigen** comprising a fungal fixed cell free from its cell wall.
SOLUTION: This medicinal composition contains as an active ingredient (A) a **fungal antigen** comprising a fixed fungal cell whose cell wall is partially or wholly removed. The composition is obtained e.g. by suspending a fungus such as Candida **albicans** in a proper buffer solution, adding a cell wall-lysing enzyme and, if necessary, further a protease to the suspension, treating for 10 min to several hr to remove a part or all parts of the cell wall, suspending the obtained wall-removed fungus in a 5-8 pH citric acid buffer solution or phosphoric buffer solution containing 0.5-5% of glutaraldehyde or formaldehyde, treating at a temperature of 5-20°C for 1-60 min, centrifuging the treated suspension, sufficiently washing with distilled water,

and subsequently using the obtained component A.
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L16 ANSWER 4 OF 5 USPATFULL

ACCESSION NUMBER:	2002:112558 USPATFULL
TITLE:	**Fungal antigens** and process for producing the same
INVENTOR(S):	**Takesako, Kazutoh**, Otsu-shi, JAPAN **Mizutani, Shigetoshi**, Gamo-gun, JAPAN **Endo, Masahiro**, Kusatsu-shi, JAPAN **Kato, Ikunoshin**, Uji-shi, JAPAN
PATENT ASSIGNEE(S):	TAKARA SHUZO CO., LTD, Kyoto, JAPAN (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002058293	A1	20020516
APPLICATION INFO.:	US 2001-987190	A1	20011113 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 1999-262856, filed on 4 Mar 1999, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	WO 1997-JP3041	19970829
	JP 1996-255400	19960904
	JP 1997-99775	19970331

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	BIRCH STEWART KOLASCH & BIRCH, PO BOX 747, FALLS CHURCH, VA, 22040-0747
NUMBER OF CLAIMS:	20
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	9 Drawing Page(s)
LINE COUNT:	3093

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB There can be provided a **fungal antigen** which is an insoluble fraction obtainable from fungal cells of which cell wall has been substantially removed or at least partially removed; a process for producing the same; a nucleic acid encoding the **fungal antigen**; a biologic product containing the **fungal antigen**; a method of stimulating immunological responses by using the biologic product; a method of suppressing allergic reaction to fungi in a vertebrate; and a method for diagnosing a disease caused by fungi in a vertebrate.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 5 OF 5 USPATFULL

ACCESSION NUMBER:	2001:235097 USPATFULL
TITLE:	**Fungal antigens** and process for producing the same
INVENTOR(S):	**Takesako, Kazutoh**, Otsu, Japan **Mizutani, Shigetoshi**, Gamo-gun, Japan **Endo, Masahiro**, Kusatsu, Japan **Kato, Ikunoshin**, Uji, Japan
PATENT ASSIGNEE(S):	Takara Shuzo Co., Ltd., Kyoto, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6333164	B1	20011225
APPLICATION INFO.:	US 1999-262856		19990304 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. WO 1997-JP3041, filed on 29 Aug 1997		

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1996-255400	19960904
	JP 1997-99775	19970331

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Smith, Lynette R. F.
ASSISTANT EXAMINER: Baskar, Padma
LEGAL REPRESENTATIVE: Birch, Stewart, Kolasch & Birch, LLP
NUMBER OF CLAIMS: 12
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 9 Drawing Figure(s); 9 Drawing Page(s)
LINE COUNT: 2782
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB There can be provided a **fungal antigen** which is an insoluble fraction obtainable from fungal cells of which cell wall has been substantially removed or at least partially removed; a process for producing the same; a nucleic acid encoding the **fungal antigen**; a biologic product containing the **fungal antigen**; a method of stimulating immunological responses by using the biologic product; a method of suppressing allergic reaction to fungi in a vertebrate; and a method for diagnosing a disease caused by fungi in a vertebrate.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

FILE 'HOME' ENTERED AT 11:05:37 ON 10 APR 2003